

Mao Declaration

Exhibit 98

Redacted Version of Document
Sought to Be Sealed

Psounis Transcript

1 IN THE UNITED STATES DISTRICT COURT
2 FOR THE NORTHERN DISTRICT OF CALIFORNIA
3 OAKLAND DIVISION

4 CHASOM BROWN, et al.,)
5 on behalf of themselves)
6 and all others similarly)
7 situated,)
8 Plaintiffs,)
9 vs.) Case No.
10 GOOGLE LLC,) 4:20-cv-03664-YGR-SVK
11 Defendant.)
12 -----)

13 CONFIDENTIAL

14 ---oo---

15 Videotaped Zoom Deposition of
16 KONSTANTINOS PSOUNIS, Ph.D.

17 Friday, August 19, 2022

18 ---oo---

19
20
21 Katy E. Schmidt
22 RPR, RMR, CRR, CSR 13096
23 Veritext Job No.: 5344586

24
25 PAGES 1 - 250

1 IN THE UNITED STATES DISTRICT COURT
2 FOR THE NORTHERN DISTRICT OF CALIFORNIA
3 OAKLAND DIVISION

4 ---oo---

5 CHASOM BROWN, et al.,)
6 on behalf of themselves)
7 and all others similarly)
8 situated,)
9 Plaintiffs,)
10 vs.) Case No.
11 GOOGLE LLC,) 4:20-cv-03664-YGR-SVK
12 Defendant.)
13 _____)

14 BE IT REMEMBERED that, pursuant to Notice,
15 and on Friday, the 19th day of August, 2022,
16 commencing at the hour of 9:04 a.m., thereof, in Los
17 Angeles, California, before me, KATY E. SCHMIDT, a
18 Certified Shorthand Reporter in and for the County of
19 Yolo, State of California, there virtually personally
20 appeared

21 KONSTANTINOS PSOUNIS, Ph.D.
22 called as a witness herein, who, being by me first
23 duly sworn, was thereupon examined and interrogated as
24 hereinafter set forth.

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2
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4 (Appeared via Zoom)

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22 Also present:

23 Sean Grant, Videographer

24 Jonathan Hochman, Expert Witness

25

1 INDEX OF EXAMINATION
2 ---oo---

3		Page
4	Examination by Mr. Mao	10
5	Examination by Mr. Ansorge	229

6
7 ---oo---

8
9 QUESTIONS INSTRUCTED NOT TO ANSWER

10
11 Page Line

12
13 (NOTHING OFFERED.)

14
15 ---oo---

16
17
18
19
20
21
22
23
24
25

Page 5

INDEX OF EXHIBITS

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Number	Page
Exhibit 1	Document: Expert Report of Konstantinos Psounis, Ph.D. 22
Exhibit 2	Document: Order on Plaintiffs' Motion for Sanctions for Discovery Misconduct, Unredacted Version of Document Sought to be Sealed 29
Exhibit 3	Document: Supplemental Declaration of Martin Sramek in Response to May 20, 2022 Order 101
Exhibit 4	Document: Fax Transmission Order Adopting in Part and Modifying in Part the Special Master's Report and Orders on Referred Discovery Issues 68
Exhibit 5	Document: Second Supplemental Declaration of Martin Sramek in Response to May 20, 2022 Order 106

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1	Exhibit 6	Document: Incognito Events	129
2		Labeling	
3	Exhibit 7	Document: Email	137
4	Exhibit 8	Document: W3C TAG	151
5		Observations on Private	
6		Browsing Modes	
7	Exhibit 9	Document: Letter dated	156
8		3/17/22 to Mark C. Mao	
9		from Brett N. Watkins	
10	Exhibit 10	Document: Unified ID	158
11		Linkage Design	
12			
13		---oo---	
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			

LOS ANGELES, CALIFORNIA

FRIDAY, AUGUST 19, 2022; 9:04 A.M.

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THE VIDEOGRAPHER: Good morning. We are on 09:04
the record. The time is 9:04 a.m., and the date is 09:04
August 19th, 2022. 09:04

7 Please note that this deposition is being 09:04
8 conducted virtually. Quality of recording depends on 09:04
9 the quality of camera and internet connection of 09:04
10 participants. What is seen from the witness and heard 09:04
11 on screen is what will be recorded. 09:04

15 This is Media Unit No. 1 of the 09:04
16 video-recorded deposition of Konstantinos Psounis, 09:04
17 Ph.D., taken by counsel for plaintiffs in the matter 09:05
18 of Chasom Brown, et al., versus Google, LLC, filed in 09:05
19 the United States District Court, Northern District of 09:05
20 California, Case No. 5 colon 20 dash CV dash 03664 09:05
21 dash YGI dash SEK, and is being conducted remotely 09:05
22 using virtual technology. 09:05

23 My name is Sean Grant from the firm 09:05
24 Veritext. I'm the videographer. 09:05

25 And the court reporter is Kathryn Schmidt. 09:05

1 also from Veritext. 09:05
2 I am not related to any party in this 09:05
3 action, nor am I financially interested in the 09:05
4 outcome. 09:05
5 If there are any objections to proceeding, 09:05
6 please state them at the time of your appearance. 09:05
7 Counsel and all present, including remotely, 09:05
8 will now state their appearance and affiliations for 09:05
9 the record, beginning with the noticing attorney, 09:05
10 Mr. Mao. 09:05
11 MR. MAO: I'm just going to state it for the 09:05
12 plaintiffs, and I apologize to anybody in advance. 09:05
13 This is Mark Mao of Boies Schiller Flexner 09:05
14 for plaintiffs. 09:05
15 Also with me are Ms. Alison Anderson, 09:05
16 Ms. Erika Nyborg-Burch, Mr. Logan Wright, and I think 09:06
17 that is it for BSF. 09:06
18 I also have with us plaintiffs' technical 09:06
19 expert, Jonathan -- Dr. Jonathan Hochman. 09:06
20 Also with us are colleagues at the 09:06
21 Morgan & Morgan firm, Mr. Ryan McGee and 09:06
22 Mr. John Yanchunis. And lastly from Susman Godfrey we 09:06
23 have Mr. John Priddy. 09:06
24 MR. ANSORGE: Josef Ansorge with 09:06
25 Quinn Emanuel Urquhart & Sullivan. 09:06

1	And I'm joined here today by Carl Spilly	09:06
2	who's also with Quinn Emanuel Urquhart & Sullivan.	09:06
3	MS. TRUONG: An Truong,	09:06
4	Simmons Hanly Conroy, on behalf of Calhoun plaintiffs.	09:06
5	THE VIDEOGRAPHER: Would the certified	09:06
6	court reporter please swear in the witness.	09:06
7	---oo---	09:06
8	KONSTANTINOS PSOUNIS,	09:06
9	called as a witness by the Plaintiffs, who, being	09:06
10	first duly sworn to tell the truth, the whole truth	09:06
11	and nothing but the truth, was examined and testified	09:06
12	as follows:	09:06
13	THE VIDEOGRAPHER: Counsel.	09:07
14	EXAMINATION BY MR. MAO	09:07
15	BY MR. MAO:	09:07
16	Q. Good morning, Professor.	09:07
17	If my questions are -- sorry. Just --	09:07
18	A. Good morning.	09:07
19	Q. Yeah. Make sure -- I will try my best to	09:07
20	pause to allow you to state your answers, and -- it's	09:07
21	a little awkward because, you know, these Zoom	09:07
22	depositions, it's very difficult to see body language	09:07
23	and hand gestures. So we're going to miss our visual	09:07
24	queues a little bit here and there. So I apologize in	09:07
25	advance. And I apologize to the poor stenographer	09:07

1 who's going to have to type this down. 09:07
2 So if my questions are unclear today, can 09:07
3 you please just -- my suggestion is maybe just hold up 09:07
4 your hand. That way I know that you want to speak. 09:07
5 That way, you know, you can ask me to clarify. 09:07
6 Is that understood? 09:07
7 A. Yes. 09:07
8 So would you like me to do this during your 09:07
9 question or should I wait until you're done? 09:07
10 Q. It's totally up to you. We're going to have 09:07
11 to find our visual queues with each other over Zoom. 09:08
12 I typically prefer these over in person. I'm kind of 09:08
13 an in-person kind of guy. But, you know, we will work 09:08
14 with the technology in the new paradigms. 09:08
15 Is there Google counsel representing you 09:08
16 today for this deposition? Can you state that for the 09:08
17 record who that is? 09:08
18 A. It's Mr. Josef Ansorge. 09:08
19 Q. Okay. Where are you currently for this 09:08
20 deposition, physically? 09:08
21 A. I am in my home. 09:08
22 Q. It's -- 09:08
23 A. In Pacific Palisades. This is where my 09:08
24 address is. Inside right now in the master bedroom of 09:08
25 the house. 09:08

1 Q. Yeah. I know that's a little confusing 09:08
2 because your background is a library but, you know, 09:08
3 it's within your home. 09:08
4 And did you say it's Pacifica? 09:08
5 A. Pacific Palisades. The ZIP code is 90272. 09:09
6 I don't know if you know the Los Angeles area. It's 09:09
7 very close to Santa Monica. 09:09
8 Q. Got it. West side. That's considered west 09:09
9 side, yes. 09:09
10 Is there anybody with you in that room 09:09
11 currently for that deposition? 09:09
12 A. No. There is nobody. 09:09
13 Q. Okay. Do you have any documents with you 09:09
14 for this deposition? In other words, did you bring 09:09
15 any documents? 09:09
16 A. Perfect. The only document I have with me 09:09
17 is hard copy of my expert report -- well, because of 09:09
18 the -- but it was brought to me by Quinn Emanuel 09:09
19 yesterday. 09:09
20 Q. Okay. Are there any markings or writings on 09:09
21 that? 09:09
22 A. Not at all. 09:09
23 Q. Okay. So one suggestion -- and we can wait 09:09
24 for the break for this to happen -- is at some point 09:09
25 I'm going to start referring you to Dr. Hochman's 09:09

1 report as well, so you may want a physical copy. I 09:09
2 think it's going to make it a little easier. But 09:10
3 that's just my suggestion. Everybody uses interfaces 09:10
4 differently, and it's completely up to you. 09:10

5 Okay? 09:10

6 A. How would I do this? I guess I can live 09:10
7 with the electronic copy, unless Mr. Ansorge wants to 09:10
8 assist with Quinn Emanuel -- 09:10

9 MR. ANSORGE: Yeah. I fear we won't be able 09:10
10 to express deliver that in time. So I think we would 09:10
11 just have to work with the Exhibit Share copy of any 09:10
12 exhibits that are entered. 09:10

13 MR. MAO: Okay. Totally understood. 09:10

14 BY MR. MAO: 09:10

15 Q. What, if anything, did you do to prepare for 09:10
16 this deposition here today? 09:10

17 A. I viewed documents and testimony and had 09:10
18 some meetings with counsel. 09:10

19 Q. Did you review any documents not identified 09:10
20 in your report? 09:11

21 A. I don't think so. No, I can't think of any. 09:11

22 Q. In total, how much time did you spend to 09:11
23 prepare for this deposition? 09:11

24 A. I'm just trying to get -- that's why I'm 09:11
25 counting. About 20, maybe 30 maximum hours. 09:11

1	Q. And when you are talking about the hours	09:11
2	here, you're talking about hours with counsel or just	09:11
3	total hours preparing for this deposition?	09:11
4	A. Total. Total hours.	09:12
5	Q. Preparing for the deposition?	09:12
6	A. Right.	09:12
7	So in these hours, there are some hours	09:12
8	included that we are meeting with counsel.	09:12
9	Q. Got it.	09:12
10	Can you tell me who hired you for this case	09:12
11	initially?	09:12
12	MR. ANSORGE: Objection. Form.	09:12
13	THE WITNESS: I'm sorry. I apologize.	09:12
14	BY MR. MAO:	09:12
15	Q. So let me --	09:12
16	A. Can you please rephrase --	09:12
17	Q. Sure. Yeah. I was going to do that because	09:12
18	I do think that Mr. Ansorge's objection is proper.	09:12
19	Who first reached out to you regarding	09:12
20	expert work for this case?	09:12
21	A. To the best of my recollection, because it's	09:12
22	been some time, it was Mr. Josef Ansorge.	09:12
23	Q. Do you and Mr. Ansorge have a prior	09:13
24	relationship?	09:13
25	A. No.	09:13

1 Q. I was going to ask you if he was your 09:13
2 student and whether or not he got an A in the course. 09:13
3 But -- so you have no knowledge of how -- 09:13
4 how Mr. Ansorge found you? 09:13
5 A. I think that he found me through DLD, but 09:13
6 that's something that -- I'm not sure. I don't know 09:13
7 the process. I'm just -- 09:13
8 Q. What is -- what is DLD? 09:13
9 A. It's DLD. It's a firm that refers experts, 09:13
10 that matches experts -- I don't know. I guess 09:13
11 Mr. Ansorge would know more. But it is a firm that 09:14
12 you submit your CV and they match experts with 09:14
13 attorney offices, I guess. I haven't worked with them 09:14
14 much. 09:14
15 Q. Got it. 09:14
16 Can you -- I think at some point during the 09:14
17 break we're going to ask you for exactly the spelling 09:14
18 of either the acronym of the name of that firm, if you 09:14
19 don't mind. 09:14
20 Okay? 09:14
21 When did this outreach to you or to the 09:14
22 agency first happen? 09:14
23 A. I think it was towards the end of 2021, 09:14
24 early 2022, to the best of my recollection. 09:15
25 Q. Do you have an estimated month, you think, 09:15

1 that he first reached out? 09:15

2 A. I just don't want to answer it inaccurately. 09:15

3 That's why I'm thinking about it. Maybe December, 09:15

4 January, in that time frame. 09:15

5 Q. Of 2021 you said? 09:15

6 A. December 2021 or January 2022. 09:15

7 Q. Got it. 09:15

8 Have you ever spoken with a 09:15

9 Dr. Georgios Zervas? 09:15

10 A. I do not think so. 09:16

11 Q. Do you know in this case what is the 09:16

12 difference between what you're supposed to do versus 09:16

13 what Dr. Zervas is supposed to do? 09:16

14 MR. ANSORGE: Objection. Vague. 09:16

15 BY MR. MAO: 09:16

16 Q. What is the delineation between the two 09:16

17 roles, to the best of your understanding? 09:16

18 A. I don't want to mischaracterize this because 09:16

19 I know what I've been asked to do for this case, 09:16

20 obviously. So I've been asked to offer opinions on 09:16

21 Mr. Hochman's and Mr. Schneier's reports, rebuttals, 09:16

22 for the specific opinions and quotes that -- from 09:16

23 their reports that I cite inside my report, but I'm 09:16

24 not sure I can give a very precise answer -- an 09:17

25 accurate enough answer because I haven't ever talked 09:17

1 to Mr. -- or Professor -- or Dr. Zervas to know 09:17
2 exactly what he's supposed to cover and what I'm 09:17
3 supposed to cover. 09:17
4 Q. Got it. 09:17
5 So that means that you have no prior 09:17
6 relationship with Dr. Zervas. 09:17
7 Is that correct? 09:17
8 A. It is correct. I have no prior 09:17
9 relationship. I don't -- he's an academic, so it 09:17
10 could be the case that we met at a conference, but I 09:17
11 do not remember this happening. So I can tell you my 09:17
12 recollection is that I have never met him. It's just 09:18
13 that some conferences have a thousand people and I 09:18
14 don't want to say anything remotely inaccurate. 09:18
15 Q. Got it. 09:18
16 What about the other experts on Google's 09:18
17 side in this case; do you have any prior relationships 09:18
18 with the rest of them? 09:18
19 MR. ANSORGE: Objection. Compound. 09:18
20 THE WITNESS: Could you please tell me which 09:18
21 ones you are -- well, maybe list them so that I make 09:18
22 sure I don't give you any inaccurate answer. 09:18
23 BY MR. MAO: 09:18
24 Q. So I understand you want to be extremely 09:18
25 precise. You said it a couple times. So let me just 09:18

1 understand -- let me just maybe make this easier. 09:18
2 It doesn't sound like you actually spoke to 09:18
3 any other Google expert for the purposes of your 09:18
4 report or your testimony here today. 09:18
5 Is that correct? 09:18
6 A. I have not talked with any other Google 09:18
7 expert for the purposes of my report or testimony. 09:19
8 I did have a meeting, I think, with 09:19
9 Dr. Schwartz for 30 minutes -- about 30 minutes, 09:19
10 actually. I don't remember for how long. 09:19
11 Q. Was this with -- in the presence of other 09:19
12 counsel? 09:19
13 A. Yes. In the presence of Mr. Ansorge. 09:19
14 Q. Got it. 09:19
15 Who explained to you -- and I don't want to 09:19
16 know about what was explained to you. I just want to 09:19
17 know who -- who explained to you what your assignment 09:19
18 was going to be in this case? 09:19
19 I'm talking about first, the initial 09:19
20 engagement. 09:19
21 A. Mr. Ansorge. 09:19
22 Q. Got it. 09:19
23 And this, to the best of your recollection, 09:20
24 this first interaction was in December of 2021. 09:20
25 Is that correct? 09:20

1 A. December 2021, January 2022, somewhere 09:20
2 there. It's also the break, so things are a little 09:20
3 bit more, you know, muddy. 09:20
4 Q. Got it. Got it. 09:20
5 09:20
6 So then other than this lawsuit, and I think 09:20
7 the Calhoun lawsuit, have you ever done any work for 09:20
8 Quinn Emanuel? 09:20
9 09:20
10 MR. ANSORGE: Objection. Compound. Assumes 09:20
11 facts not in evidence. 09:20
12 09:20
13 THE WITNESS: So would you break this down? 09:20
14 So I haven't done any other work for any 09:20
15 other case. For Quinn Emanuel, you mentioned another 09:20
16 case. 09:20
17 09:20
18 BY MR. MAO:
19 09:20
20 Q. Calhoun. I see. I see. 09:20
21 09:20
22 So you're not -- you're not an expert in 09:20
23 Calhoun versus Google. 09:20
24 09:20
25 Is that correct? 09:20
26 09:20
27 A. Yes, it is correct. I am not. 09:20
28 09:21
29 Q. Got it. 09:21
30 09:21
31 And other than this lawsuit, so you have 09:21
32 not -- I'm sorry. Strike that. 09:21
33 09:21
34 Other than for this lawsuit, have you ever 09:21
35 done any work for Google? 09:21
36 09:21
37 MR. ANSORGE: Objection. Vague. 09:21

1 THE WITNESS: I have not -- I'm trying to 09:21
2 remember. I've been in the business for high tech and 09:21
3 multiple distributor systems for like 25 years. 09:21
4 I have not worked for Google. I'm not sure 09:21
5 if I am working for Google now either. Maybe that's 09:21
6 a -- maybe it's a terminology issue. 09:21
7 I would argue I'm working for counsel. But 09:22
8 anyway, this is a debate, I'm just saying. 09:22
9 BY MR. MAO: 09:22
10 Q. Got it. No. I think that's actually very 09:22
11 precise and helpful. 09:22
12 So when you say that you're not sure you're 09:22
13 working for Google, is that because you have not had 09:22
14 much interactions with Google employees? 09:22
15 A. You mean in the context of this case? 09:22
16 Q. Yes. In the context of this case. 09:22
17 A. I have not had any interaction with Google 09:22
18 employees. 09:22
19 Q. Got it. 09:22
20 So did you -- have you interviewed any 09:22
21 Google employees? I know that probably counts as an 09:22
22 interaction, but I want to be precise because you're 09:22
23 being very precise. 09:22
24 A. To the best of my recollection, no. 09:22
25 Q. Have you been able to access any Google 09:22

1 technologies directly? 09:22
2 A. I'm not sure -- 09:23
3 MR. ANSORGE: Objection. Vague. 09:23
4 BY MR. MAO: 09:23
5 Q. So, for example, have you been able to run 09:23
6 any test against Google systems? 09:23
7 A. No. I haven't ran any test against Google 09:23
8 systems, whereby against Google systems I interpret or 09:23
9 I understand this to be that Google is giving me 09:23
10 access to their internal system, I'm getting passwords 09:23
11 to connect to their VPN or I go in presence at 09:23
12 Mountain View and I do tests. No, I have not. 09:23
13 Q. Got it. 09:23
14 So let's be very precise, because you're 09:23
15 being very precise. 09:23
16 For example, right, like you have not been 09:23
17 given access to do any data mapping, for example. 09:23
18 Is that correct? 09:24
19 MR. ANSORGE: Objection. Vague. 09:24
20 THE WITNESS: I -- I do have access, as I 09:24
21 describe in my report. Maybe I could open it up to 09:24
22 make sure I'm using the correct terminology here to 09:24
23 the -- obviously to the data that I am citing in my 09:24
24 report. There's also an appendix with data, and I 09:24
25 have done some analysis of this data. 09:24

1	A. Let me just put this box here.	09:26
2	Yes. This is my report.	09:26
3	Q. Got it.	09:27
4	And does that report contain all of your	09:27
5	opinions?	09:27
6	A. Yes.	09:27
7	Q. And does this report contain all of the	09:27
8	basis for your opinions as well?	09:27
9	A. Yes. I mean -- let me be precise again.	09:27
10	Yes. I remember in the report saying	09:27
11	something to the effect of if new information comes,	09:27
12	then, you know, I can revisit the issues and add	09:27
13	supplementary opinions, I guess in that process. I	09:27
14	may also have new basis for the new -- for the	09:27
15	supplemental thoughts or opinions of mine.	09:27
16	Q. Got it.	09:28
17	When you look at your report, there is a	09:28
18	place where you list all the materials you relied on	09:28
19	for your rebuttal report.	09:28
20	Do you see that?	09:28
21	A. Let me open it up.	09:28
22	Q. By the way, totally fine to use the physical	09:28
23	copy if that's easier for you, Professor.	09:28
24	A. Are you referring to the produced documents	09:28
25	section page starting at 203?	09:28

1 Q. I am referring to -- oh, physical copies 09:28
2 versus virtual copies. 09:28
3 I'm talking about the sources considered on 09:28
4 191 and onward. 09:28
5 Do you see that? 09:29
6 A. Ah, 8, "Sources Considered." Yes. So let 09:29
7 me go through this. 09:29
8 Q. Sure. Please, go ahead. Let's be precise. 09:29
9 A. Yes. This -- can you repeat the question? 09:30
10 Q. Yes. Of course. Let's be precise. 09:30
11 Is this a complete list of the materials you 09:30
12 relied upon for your rebuttal report? 09:30
13 A. To the best of my knowledge, yes. 09:30
14 Q. How did you get these documents and sources? 09:30
15 A. Depends on the type of document. For 09:30
16 example, let me scroll at the top of this. 09:30
17 So some documents have been provided to me 09:30
18 by counsel. Like produced documents, the ones that 09:31
19 have Bates numbers start with Google, expert reports, 09:31
20 deposition text. 09:31
21 Some documents are documents that I have 09:31
22 researched myself. Like if you look, for example, at 09:31
23 public documents, but they are -- you see the public 09:31
24 documents? 09:31
25 And even what I just said, it's not a 09:31

1 hundred percent -- it's not the case that every single 09:31
2 one document, you know, what it's -- Bates document -- 09:31
3 do you see what I mean? I don't want to be to the 09:32
4 point of being too -- but basically this is the main 09:32
5 two sources: Either I found them on my own or they 09:32
6 have been provided to me by counsel. 09:32

7 Q. Got it. 09:32

8 Now we've talked about how you've got the 09:32
9 documents. 09:32

10 May I ask were there documents that you 09:32
11 specifically requested yourself? And you can go by 09:32
12 categories. Like what did you actually request? 09:32

13 A. There were documents that they were 09:32
14 specifically requested by me. I wouldn't be able to 09:32
15 tell you, especially when it comes to the produced 09:32
16 documents just by the numbers, which ones in 09:33
17 particular. Because while I was reviewing documents, 09:33
18 I wanted to further investigate, look for some topics. 09:33
19 So I would say I would like, you know, any additional 09:33
20 documents you may have related to this topic. 09:33

21 And then they give me more documents. 09:33

22 With respect to public documents, I just 09:33
23 found them myself. The vast majority of public 09:33
24 documents, if not all of them -- if I say all of them, 09:33
25 I would have to go one by one and make sure. But I'm 09:33

1 sure that very vast majority of them is actually 09:33
2 documents I found myself, I accessed them myself. For 09:33
3 practical purposes, all of them I would say, public 09:33
4 documents. 09:34

5 Then the reports, they were obviously 09:34
6 provided to me by counsel. 09:34

7 The same thing I said about produced 09:34
8 documents also holds for depositions. I obviously 09:34
9 wouldn't know in advance who has been deposed. And I 09:34
10 don't know any of the people -- well, actually, I 09:34
11 should read all the names that has been deposed. But 09:34
12 I got some deposition transcripts, I would review 09:34
13 them, and then I would say are there any other... 09:34

14 Q. Got it. 09:34

15 So I note on the very end of your 09:34
16 "Sources Considered," you have "Source Files." 09:34

17 Can you tell me a little bit what those are? 09:34
18 I see four. There's a "DBL" row, two of them, 09:34
19 "Consolidated", and then "IP Plus UA Analysis." 09:34

20 Do you see at the very end, page 207? 09:35

21 A. Mm-hm. 09:35

22 Q. What are those? 09:35

23 The main reason, Doctor, I'm trying to ask 09:35
24 about that is because I'm trying to be precise. I'm 09:35
25 trying to understand what makes them source files as 09:35

1 opposed to, you know, something else in that list. 09:35
2 I'm trying to understand your categorization. 09:35
3 A. Okay. So I can tell you -- because here is 09:35
4 this a matter of me remembering. You know when -- 09:35
5 better than me, I assume that similar to Mr. Ansorge, 09:35
6 you have been working on this for a long time. 09:35
7 There's a lot of documents here, so forgive me. 09:35
8 Sometimes I don't remember everything. 09:35
9 So the first two I actually list them in 09:35
10 appendix G, the one ending at B1 and DC. So you could 09:35
11 also see -- 09:36
12 Q. Yeah. 09:36
13 Again, Doctor -- Professor, remember, I'm 09:36
14 just trying to understand your categorization. Like 09:36
15 what makes these source files as opposed to other 09:36
16 files? I'm just trying to understand the genre in 09:36
17 which you're organizing everything. 09:36
18 MR. ANSORGE: Mr. Mao, please let him 09:36
19 finish. I don't think he was finished with his answer 09:36
20 yet. 09:36
21 THE WITNESS: So looking at appendix G as an 09:36
22 example, the text document has source code, meaning 09:36
23 it's not text that would be understood by somebody 09:36
24 without knowledge of the particular syntax of creating 09:36
25 this structures. It's not a sentence. 09:37

1 So for the case of B1 and DC, this is why 09:37
2 I'm listing them differently separately from the 09:37
3 others. 09:37
4 And the other two, I have to remember. 09:37
5 Because they are not in my report, I wouldn't want to 09:37
6 say something inaccurate. 09:37
7 But hopefully you already got what you 09:37
8 needed. 09:37
9 BY MR. MAO:
10 Q. Right. 09:37
11 And so what I'm trying to understand is did 09:37
12 you request all four of these source files yourself or 09:37
13 were they provided to you by counsel, to the best of 09:38
14 your recollection? 09:38
15 MR. ANSORGE: Objection. Form and compound. 09:38
16 THE WITNESS: I think -- I don't remember. 09:38
17 I think I did request them. For example, the -- the 09:38
18 two that I have in my report, and hence I know what 09:38
19 they are. 09:38
20 I believe the way I would put it as 09:38
21 precisely as possible is I said could you give me 09:38
22 files that they associated with two different Biscotti 09:39
23 IDs? Because, you know -- and then they would give me 09:39
24 files. Maybe some other files that they associated 09:39
25 with different Biscotti IDs. 09:39

1 So I guess I requested them. But before I 09:39
2 see -- you know, there is a lot of files. I don't 09:39
3 want say that, you know, one day I said can I please 09:39
4 have the file DBL row 22C947? 09:39

5 You understand what I'm saying? 09:39

6 BY MR. MAO:

7 Q. Got it. 09:39

8 So let me -- let me give you the reason why 09:39
9 I'm asking. 09:39

10 A. Perfect. 09:39

11 Q. Okay. That way we can both be precise. 09:39

12 I'm going to introduce to you a document, 09:39
13 and I'll explain to you what it is, if you don't know. 09:39
14 But if you've seen this before, please let me know. 09:39
15 It's Exhibit No. 2. If you've never seen it before, 09:39
16 let me know immediately and then we'll kind of get to 09:39
17 the point. 09:40

18 (Plaintiffs' Exhibit 2 was 09:40
19 marked for identification.) 09:40

20 BY MR. MAO: 09:40

21 Q. Exhibit No. 2 is an Order on Plaintiffs' 09:40
22 Motion for Sanctions for Discovery Misconduct. 09:40

23 A. Let me open it up. Order... 09:40

24 Q. Take your time. 09:40

25 My first question to you is: Have you ever 09:40

1	seen this document before?	09:40
2	A. Let me first use a local copy. I just	09:40
3	downloaded. It's just easier to browse through it.	09:40
4	So I'm not reading it. I'm just scanning it to see if	09:41
5	it rings a bell to answer whether I...	09:41
6	I do not think that I have seen this before.	09:41
7	Q. So are you aware that Google was sanctioned	09:41
8	for discovery misconduct in this case?	09:41
9	A. No. I mean, I don't think I am. No.	09:41
10	Q. So are you aware that Google was -- oh, go	09:41
11	ahead. Sorry. Go ahead. That was -- that was our	09:41
12	safe signal for you interrupting me; right?	09:41
13	So go ahead. Yeah, please.	09:42
14	A. I don't remember. But Mr. Hochman's report	09:42
15	I believe had in a paragraph something to that effect.	09:42
16	So basically I read this to say -- I read	09:42
17	Mr. Hochman's report and I think -- I think -- I'm not	09:42
18	sure. I think -- perhaps you can confirm. I think	09:42
19	that he mentions something about misconduct in -- in	09:42
20	his report. But I have not seen this document.	09:42
21	Q. Got it.	09:42
22	And you did not hear that from any other	09:42
23	source; right? I'm not talking about your attorneys.	09:42
24	But you have not heard about the Court sanctioning	09:42
25	Google for discovery misconduct from another source.	09:42

1	Is that correct?	09:42
2	A. Yes. It is correct.	09:42
3	Q. Okay. So the reason why I ask is because	09:42
4	part of the sanctions that was imposed related to data	09:42
5	sources. And one of the reasons why the Court	09:43
6	sanctioned Google was for the withholding of data	09:43
7	sources.	09:43
8	And you may take time to read through this,	09:43
9	if you need, but I actually have a very, very specific	09:43
10	question, which is on page 6, at the bottom, towards	09:43
11	the conclusion. So if you scroll to page 6, under	09:43
12	"Conclusion," bulletproof -- bullet point 1.	09:43
13	MR. ANSORGE: And, Dr. Psounis, since you've	09:43
14	not seen this document before, you're well within your	09:43
15	rights to familiarize yourself with the whole	09:43
16	document.	09:43
17	MR. MAO: Please do. If you want to first	09:43
18	read it, please do. But I'm actually specifically	09:43
19	asking you about that one point right there. But you	09:43
20	may take your time.	09:43
21	THE WITNESS: Thank you. I will very likely	09:43
22	take my time to make sure I am precise. But you are	09:43
23	welcome to -- who knows. Maybe I can be fast for you.	09:43
24	I mean, I'm not trying to --	09:43
25	/ / /	

1 BY MR. MAO: 09:43

2 Q. This is my suggestion: We can spend three 09:43

3 or four minutes on the record, trying to read this. 09:44

4 If you need longer than that and you want longer than 09:44

5 that, we're going to take a break and you can read it 09:44

6 on your own time. 09:44

7 How is that? 09:44

8 MR. ANSORGE: No, we're not going to do 09:44

9 that, Mr. Mao. We're not going to have the witness 09:44

10 reading documents during the breaks. 09:44

11 MR. MAO: Is this your deposition or my 09:44

12 deposition, Mr. Ansorge? 09:44

13 MR. ANSORGE: It's common practice, Mr. Mao. 09:44

14 We're not going to be sending the witness into a break 09:44

15 to be reviewing a 50-page document that you've shown 09:44

16 to him. That's not something we're going to do. 09:44

17 MR. MAO: Well, then I'm going to ask him: 09:44

18 BY MR. MAO:

19 Q. Do you want to read this document, 09:44

20 Professor Psounis? I presume you do; right? 09:44

21 A. I would like to read this document. 09:44

22 Q. Go ahead. Just do it. Let Mr. Ansorge and 09:44

23 I argue about that later. 09:44

24 Go ahead. 09:44

25 A. Okay. 09:44

1	I'm at "Conclusions." I'm trying to scan	09:47
2	it. So let me just read the "Conclusions" carefully	09:48
3	now.	09:48
4	I read it.	09:49
5	Q. Great. Thank you.	09:49
6	A. Up to page 7; right? I didn't go.	09:49
7	Q. Oh, you didn't read the "Findings"?	09:49
8	A. I was reading the first seven pages.	09:49
9	Q. Ah. No. If you need to find the -- read	09:49
10	the "Findings of Fact," please go ahead. I'll wait	09:49
11	for you.	09:49
12	A. If I -- okay. It's another 40 pages. I'm	09:49
13	doing my best.	09:49
14	Q. Go ahead. If Mr. Ansorge wants to argue	09:49
15	about this, we'll argue with the Court on this.	09:50
16	Go ahead.	09:50
17	MR. ANSORGE: Mr. Mao, just so I'm clear,	09:51
18	you're asking him to read the "Findings of Fact" in	09:51
19	the order that extend from -- is it page 1 to 16?	09:51
20	Is that correct?	09:51
21	MR. MAO: I already told you that we should	09:51
22	take a break. If you want to argue with me at this	09:51
23	time, you're trying to duck from me, I will do that in	09:51
24	front of the judge. We can do that.	09:51
25	Go ahead.	09:51

1 MR. ANSORGE: I'm just asking what you have 09:51
2 asked the witness to look at in particular. Because 09:51
3 there's two findings of fact. There's one right at 09:51
4 the beginning of the document, to abbreviate it, and 09:51
5 then there's one that's like 16 pages. 09:52

6 MR. MAO: I'm going to ask him about the 09:52
7 document and I'm going to be asking him specifically 09:52
8 about the parts that relate to data and logs. 09:52

9 THE WITNESS: So let me tell you what I've 09:52
10 done already. I've read the first seven pages, and I 09:52
11 am down to page 2. If -- on background. 09:52

12 If there is a specific part that you could 09:52
13 direct me to, I have -- I'll be happy to go there. 09:52

14 BY MR. MAO: 09:52

15 Q. Sure. 09:52

16 So if you look at Exhibit A, which starts at 09:52
17 page 8, if you're paginating -- sorry -- page 9, if 09:52
18 you're paginating by .pdf, there's a section on 09:52
19 "Google's Discovery Deficiencies." It's going to 09:52
20 be -- 09:53

21 A. The .pdf page 9? I'm sorry. 09:53

22 Q. Yeah, .pdf page 9. 09:53

23 A. So "Finding Facts, Google Discovery 09:53
24 Deficiency," yes, I see that. 09:53

25 Q. Okay. There are three bullets under there. 09:53

1	Okay?	09:53
2	A. Yes.	09:53
3	Q. Timely -- "Fail to timely disclose relevant	09:53
4	witnesses." There's going to be "Fail to disclose	09:53
5	existence of incognito detection bits."	09:53
6	A. Mm-hm.	09:53
7	Q. And then there's going to be "Court order	09:53
8	required Google to produce plaintiffs' data and	09:53
9	identify relevant data sources."	09:53
10	A. Okay. Which one would you like me -- or	09:53
11	which one --	09:53
12	Q. I think you're going to need to read that	09:53
13	entire subsection, "Google's Discovery Deficiencies."	09:53
14	A. Okay.	09:53
15	Q. And "Findings of the Fact." Because I'm	09:53
16	going to ask you -- it's going to be relevant for my	09:53
17	questions to you about your analysis.	09:53
18	A. Okay. And --	09:53
19	Q. Take your time.	09:53
20	A. Interestingly, I was almost there,	09:53
21	meaning --	09:53
22	Q. Of course.	09:53
23	A. -- I was almost at this page, which is I	09:53
24	guess good.	09:53
25	And I actually -- I think it was helpful for	09:53

1 me that I read -- scanned really quickly the first 09:54
2 seven pages, just to understand what this document is 09:54
3 about. 09:54
4 Q. Yeah. Well, I'm a little surprised you 09:54
5 don't have this so I do want you to take your time, 09:54
6 you know, so that we're asking questions to you fairly 09:54
7 and you can be precise. 09:54
8 A. I'm at "Google's Discovery Deficiencies," 09:55
9 and I'm going through this section. 09:55
10 I think I'm done but let me again 09:59
11 double-check the pages of the section you asked me. 09:59
12 "Discovery Deficiencies" 9 to 16. 09:59
13 You said that pages 9 to 16; correct? 09:59
14 Q. Yes. 09:59
15 A. Let me see where I am. 09:59
16 Let me see already. I'm on page 16, 10:00
17 "Required to Produce" -- 10:00
18 THE COURT REPORTER: I'm sorry, Doctor, when 10:00
19 you speak to yourself, I need to hear it clearly or 10:00
20 not. 10:00
21 THE WITNESS: I believe I should -- I 10:00
22 scanned all the way to page 33 so that we can move on, 10:00
23 and see if I really need to spend more time, I can 10:00
24 ask. I don't want to just, you know... 10:00
25 ///

1	BY MR. MAO:	10:00
2	Q. Sure. Sure.	10:00
3	A. So 23 is the last page, correct,	10:00
4	essentially?	10:00
5	Q. Yeah. Yeah.	10:00
6	A. Okay.	10:00
7	Q. Yeah.	10:00
8	So -- so let's be very precise.	10:00
9	Okay?	10:00
10	Looking at Exhibit 1, which is your report,	10:00
11	it is dated June 7, 2022.	10:01
12	A. It is dated June 7, 2022, yes.	10:01
13	Q. Did you finish your report on June 7, 2022?	10:01
14	A. Around the date. I was --	10:01
15	Q. Okay.	10:01
16	Here is where the precision is required:	10:01
17	On May 20th is when we received the	10:01
18	sanctions order. You can verify that against	10:01
19	Exhibit No. 2.	10:01
20	My question to you, Professor --	10:01
21	A. Mm-hm.	10:01
22	Q. -- is did you take into consideration the	10:01
23	findings that were issued on May 20th, 2022 into your	10:01
24	report?	10:01
25	MR. ANSORGE: Objection. Vague. And calls	10:01

1 for a legal conclusion. 10:02
2 BY MR. MAO: 10:02
3 Q. I'm asking because you said you've never 10:02
4 seen this document before, and that's what I'm trying 10:02
5 to understand. I'm trying to reconcile the two. 10:02
6 A. I've never seen this document before, to the 10:02
7 best of my recollection. There are many, many, many 10:02
8 documents. 10:02
9 So what I can tell, going through this 10:02
10 document now, is that I didn't see something in 10:02
11 this -- in this document that would change what I say 10:02
12 in my report. 10:02
13 My understanding of what this document is 10:02
14 saying is that -- I'm not a legal expert -- excuse 10:02
15 me -- if I will not be super precise now -- is that 10:02
16 there were some logs that -- that Google produced some 10:03
17 logs with incognito bit. 10:03
18 And then, Mr. Mao, you I assume wrote some 10:03
19 objections, evidentiary objections, that called for 10:03
20 Google's request to strike some of this. And 10:03
21 objections, I guess some others I don't know, but this 10:03
22 is what I saw at the beginning. 10:03
23 There was also a discussion in the section 10:03
24 you asked me to look at, "Discovery Deficiencies," 10:04
25 about whether it timely disclosed relevant witnesses. 10:04

1 There were three witnesses that were excluded, I 10:04
2 think, something like that it said, that -- or that it 10:04
3 failed to disclose the existence of incognito bits. 10:04
4 My report is about the incognito detection 10:04
5 bits from a technical point of view. When they are 10:04
6 set, what they may or may not mean, if they are or 10:04
7 they are not reliable with respect to Mr. Hochman's 10:04
8 report assertion that they are a reliable method to 10:04
9 detecting incognito mode. 10:04
10 And I have an opinion about this, in 10:04
11 particular opinion 8, and I couldn't see anything in 10:05
12 this 15 minutes that I've been going through this that 10:05
13 would change anything in opinion 8 of mine. 10:05
14 Q. Right. Right. So let's get to that for a 10:05
15 moment; right? 10:05
16 This is what I'm trying to understand: 10:05
17 Remember, I asked you about -- about your source 10:05
18 files. 10:05
19 Okay? 10:05
20 What I'm trying to understand is before you 10:05
21 issued the report, okay, on June 7th, did you request 10:05
22 all the data sources at issue in this sanctions order? 10:05
23 Feel free to go through and look at the 10:05
24 sanctions order again because it lists a number of 10:05
25 logs and log sources. 10:05

1 MR. ANSORGE: Objection. Form. 10:06
2 THE WITNESS: I can go through the list, but 10:06
3 I can tell you already I very much doubt I will 10:06
4 remember -- I very much doubt that I remember now 10:06
5 every single string name of every single file. 10:06
6 So can you repeat the question to 10:06
7 understand? I never said I won't file X, Y, Z. 10:06
8 BY MR. MAO:
9 Q. That is the question. The question I'm 10:06
10 going to have for you is how did you go about 10:06
11 selecting the data sources in which you considered? 10:06
12 Okay? 10:06
13 And what I'm pointing out is if you were 10:06
14 not, okay -- and this is not a question, because you 10:06
15 asked me a question, although this is my deposition. 10:06
16 I just want to facilitate the precision. 10:06
17 Okay? 10:06
18 If you were not told about this order on 10:06
19 May 20th, I'm trying to figure out whether and how you 10:06
20 got any of the sources at issue in this order where 10:06
21 the Court found that Google had withheld these sources 10:07
22 from the plaintiffs? 10:07
23 That's going to be my question. 10:07
24 So if you need to stop to look at the data, 10:07
25 do that. If you need to stop to look at your sources, 10:07

1 do that. If you need to stop and go back and look at 10:07
2 your report, please do that. 10:07

3 MR. ANSORGE: Objection to counsel 10:07
4 testifying. Argumentative. Compound. 10:07

5 Is there a question pending, Mr. Mao? 10:07

6 MR. MAO: There is. 10:07

7 THE WITNESS: Okay. Can I ask you to 10:07
8 please rephrase your question because I don't 10:07
9 understand what you're asking me to -- 10:07

10 BY MR. MAO:

11 Q. Sure. 10:07

12 My question to you again is: For the logs 10:07
13 at issue in this May 20th, 2022 sanctions order, were 10:07
14 the log sources part of your consideration of sources 10:07
15 considered for your June 7th report, 18 days later? 10:07

16 A. I honestly do not know. I don't know how I 10:08
17 can check this right now. 10:08

18 Q. Please, that's what today is for. Please 10:08
19 figure out for me. Because my next question is going 10:08
20 to be how did you go about figuring that out before 10:08
21 the plaintiffs were given that data? 10:08

22 A. Figuring what out? I still don't 10:08
23 understand. 10:08

24 Q. The relevant data sources. 10:08

25 You are a data scientist, aren't you, 10:08

1 Professor? I'm trying to figure out how did you pick 10:08
2 your sources? 10:08
3 MR. ANSORGE: Objection. Argumentative. 10:08
4 Compound, and form. 10:08
5 THE WITNESS: If you're asking about the 10:08
6 four source file listed in my report on Bates 207, 10:08
7 with respect to the first two that I recall, what has 10:08
8 happened is I asked to have two files with two 10:09
9 different Biscotti IDs for the corresponding 10:09
10 plaintiff -- I believe it was a plaintiff there -- for 10:09
11 the reasons of making an argument in my report. And I 10:09
12 can also point out the paragraph where I am actually 10:09
13 referring to this. 10:09
14 So for these two, there are four source 10:09
15 files. I can tell you now how I asked about the first 10:09
16 two. 10:09
17 BY MR. MAO: 10:09
18 Q. Yeah. But I don't want to get that. 10:09
19 You and I agree, right, for data analysis, 10:09
20 we start with the sources you select. 10:09
21 Do you and I disagree on that? 10:09
22 MR. ANSORGE: Objection. Form. 10:09
23 Argumentative. 10:09
24 THE WITNESS: This is a very general 10:09
25 statement. 10:09

1	BY MR. MAO:	10:10
2	Q. Right.	10:10
3	So let me -- you expressed two big opinions,	10:10
4	in my mind in your report, Professor.	10:10
5	Okay?	10:10
6	Which is that using Google's data, users	10:10
7	cannot be identified.	10:10
8	A. Mm-hm.	10:10
9	Q. And then use -- and then incognito mode	10:10
10	cannot be reasonably accurately detected.	10:10
11	Do you disagree with those two as being your	10:10
12	opinion?	10:10
13	MR. ANSORGE: Objection. Form.	10:10
14	Mischaracterizes Exhibit 1.	10:10
15	THE WITNESS: The two opinions that I	10:10
16	believe you are referring to are my opinion --	10:10
17	MR. MAO: No, no. Please stick to my	10:10
18	question, Professor. Those are my questions.	10:10
19	Court reporter, can you please read back my	10:10
20	questions?	10:10
21	(Court reporter reads back.)	10:11
22	THE WITNESS: My -- as a matter of accuracy,	10:11
23	I would like to read the exact text title of the two	10:11
24	opinions I believe you are referring to from my	10:11
25	report.	10:11

1 Opinion -- it's because I don't want to use 10:11
2 different words from the words I have put a lot of 10:11
3 time to use and put down in my report, if you don't 10:11
4 mind. 10:11

5 So opinion 1 says Mr. Hochman's -- 10:11

6 BY MR. MAO:

7 Q. No, no. We're not doing that. I can see 10:11
8 your opinions on your report. 10:11

9 I'm simply asking -- 10:11

10 MR. ANSORGE: Let him answer your questions, 10:11
11 Mr. Mao. 10:11

12 BY MR. MAO:

13 Q. -- is my characterization correct of your 10:11
14 opinions? 10:11

15 MR. ANSORGE: Mr. Mao, please wait -- 10:11
16 BY MR. MAO:

17 Q. If you disagree, please simply say you 10:12
18 disagree. 10:12

19 MR. ANSORGE: Mr. Mao, please let the 10:12
20 witness respond. He was completed responding to your 10:12
21 questions. Clearly in the middle of a sentence. 10:12

22 THE WITNESS: I want to make sure we are 10:12
23 talking about the same opinions. 10:12

24 My understanding is that you are referring 10:12
25 to the following two opinions of mine: 10:12

1 The first is what I call in my report 10:12
2 opinion 1 and says "Mr. Hochman's opinion that users 10:12
3 can readily be identified from the data at issue is 10:12
4 incorrect." 10:12

5 And the second opinion I believe is 10:12
6 opinion 8, "Mr. Hochman's opinion that there may be 10:12
7 Chrome incognito bit reliably detects incognito 10:12
8 traffic is incorrect." 10:12

9 So your question about these two opinions of 10:12
10 mine is which one? Could you please tell me what is 10:12
11 the question about those? 10:12

12 BY MR. MAO: 10:12

13 Q. Sure. Let's stick to 1 and 8. So let me 10:12
14 just rephrase your opinions there for a moment. 10:12

15 Okay? 10:13

16 Would you agree with me that "users can be 10:13
17 readily identified from the data at issue" is 10:13
18 incorrect? 10:13

19 MR. ANSORGE: Objection. Form and compound. 10:13

20 THE WITNESS: This is getting very legal. 10:13
21 I'm not an expert in legal stuff. 10:13

22 So my opinion says that "Mr. Hochman's 10:13
23 opinion that users can readily be identified from the 10:13
24 data at issue is incorrect." So that's my opinion. 10:13
25 ///

1 BY MR. MAO: 10:13
2 Q. So what's incorrect? Mr. Hochman's opinion 10:13
3 or the fact that correct users can be readily 10:13
4 identified -- 10:13
5 A. Okay. I am offering rebuttal to 10:14
6 Mr. Hochman's report. My opinion is that users cannot 10:14
7 readily be -- so I am saying that it's incorrect to 10:14
8 state that users can readily be identified from the 10:14
9 data at issue. 10:14
10 Q. Okay. So let's stick with that for a 10:14
11 moment. 10:14
12 Okay? 10:14
13 A. Okay. 10:14
14 Q. Your opinion that users can be readily 10:14
15 identified from the data at issue is incorrect, you 10:14
16 and I do not disagree that that's your opinion. 10:14
17 Is that correct? 10:14
18 MR. ANSORGE: Objection. Form. Compound. 10:14
19 THE WITNESS: In the context of my report -- 10:14
20 in the context of my report -- and I'm only saying 10:14
21 this because I don't understand all the legal nuances. 10:14
22 I just want to be accurate. 10:14
23 My report is a rebuttal to Mr. Hochman's 10:14
24 report. So all the opinions I'm expressing in my 10:14
25 report are, by definition, an opinion on whether 10:14

1	something that Mr. Hochman is saying is correct or	10:14
2	incorrect.	10:15
3	BY MR. MAO:	10:15
4	Q. That's what I asked you; right? I asked you	10:15
5	very, very clearly, right, just a few minutes ago:	10:15
6	Are you saying that it's only Mr. Hochman's	10:15
7	opinion that is incorrect or the statement that users	10:15
8	can be readily identified from the data at issue?	10:15
9	MR. ANSORGE: Objection. Argumentative.	10:15
10	BY MR. MAO:	10:15
11	Q. Or both?	10:15
12	MR. ANSORGE: Compound. Form.	10:15
13	BY MR. MAO:	10:15
14	Q. Are you saying both -- both are incorrect?	10:15
15	MR. ANSORGE: Objection. Form.	10:15
16	THE WITNESS: I don't -- I am saying that	10:15
17	Mr. Hochman's opinion that users can readily be	10:15
18	identified from the data at issue is incorrect.	10:15
19	I will also add to offer -- you know, so	10:15
20	that -- I don't see what is the difference? I'm also	10:15
21	saying that based on all the, you know, data I have	10:15
22	seen, the documents I have read, the understanding	10:16
23	that I have about -- that were distributed systems	10:16
24	from all these years and in particular, this	10:16
25	particular system and this particular data at issue	10:16

1 that we are talking about, that users cannot readily 10:16
2 be identified from the data at issue. And I explain 10:16
3 in multiple pages why I'm making this statement so -- 10:16
4 okay. 10:16
5 BY MR. MAO:
6 Q. Great. We finally have a concession that 10:16
7 that is the broad statement you're making. 10:16
8 Now I'm going to ask you what is the basis 10:16
9 upon which you make that opinion? 10:16
10 Let's go back to the sanctions order. 10:16
11 Okay? 10:16
12 Again, my question to you is: On the basis 10:16
13 of your statement saying that users can readily be 10:16
14 identified from the data at issue is incorrect, did 10:16
15 you actually look at and assess the data source at 10:16
16 issue in the sanctions order? 10:17
17 MR. ANSORGE: Objection. Argumentative. 10:17
18 Compound, and form. 10:17
19 BY MR. MAO:
20 Q. Take the time you need to verify the 10:17
21 sources, Doctor. I want an A in your class. I want 10:17
22 to be able to tell my friend that I got an A in your 10:17
23 course. Please, tell me, which sources did you 10:17
24 consider? 10:17
25 A. I have -- 10:17

1	MR. ANSORGE: Objection. Asked and	10:17
2	answered.	10:17
3	THE WITNESS: I have considered everything	10:17
4	that is listed on my report, and in particular	10:17
5	appendix 8 has all the source that I have considered.	10:17
6	So all the opinions I'm offering are using all the	10:17
7	sources in appendix 8. And there are a lot of	10:17
8	sources.	10:18
9	So, again, that's why I'm putting them down	10:18
10	and writing them in appendix 8 so there is no	10:18
11	controversy of what I have and I have not considered	10:18
12	to form my opinions.	10:18
13	BY MR. MAO:	10:18
14	Q. Great.	10:18
15	So can we agree that if they are not listed	10:18
16	in your "Sources Considered" list, okay, they were not	10:18
17	part of the basis for your opinion? Can we agree on	10:18
18	that?	10:18
19	A. To the extent that there is no oversight	10:18
20	when we were compiling -- when I was compiling, since	10:18
21	I was taking this appendix 8, you could say that if	10:18
22	there was another source that could be put in	10:18
23	appendix 8, maybe it wasn't placed in the route of	10:19
24	oversight.	10:19
25	But, again, when I'm forming my opinions, I	10:19

1 am also using my expertise formed throughout all these 10:19
2 years, decades, on these type of systems. 10:19

3 So, again, I'm -- I'm really trying to 10:19
4 understand. 10:19

5 You see, am I supposed to list in there 10:19
6 every single paper, document, article, book that I 10:19
7 have read over the last 30 years that I've been 10:19
8 working in this field? Proposal, et cetera, 10:19
9 et cetera, all these are sources that are forming my 10:19
10 expertise on the matter. 10:20

11 So you see, I'm -- my understanding of what 10:20
12 I'm putting in this appendix is I am putting specific 10:20
13 things -- do you see what I'm trying to say here? I 10:20
14 don't know -- 10:20

15 Q. No. I actually don't, because I now have 10:20
16 questions about regarding when you got data sources. 10:20

17 Did you get any data sources after May 20th, 10:20
18 2022? Did you get any new data sources after 10:20
19 May 20th, 2022? 10:20

20 A. I don't remember if I got data sources after 10:20
21 that day. You said May 20th -- 10:20

22 Q. 20th, 2022 -- 10:20

23 A. I honestly don't know. I don't remember. 10:20
24 I -- I remember it was towards the end of May. 10:20

25 Again, I remember it was -- it must be 10:21

1 towards the end of May that I have asked for these 10:21
2 analysis. 10:21

3 Q. Let's make this easier. 10:21

4 When is the last time you got new data 10:21
5 sources? 10:21

6 A. To the best of my recollection, a couple of 10:21
7 days before the June 7th deadline. 10:21

8 Q. And after the June 7 deadline, did you get 10:21
9 any new data sources? 10:21

10 A. I do not think so, to the best of my 10:21
11 recollection. So once I submitted my report, I don't 10:21
12 remember requesting additional data analysis and that 10:22
13 receiving data sources to the best of my recollection 10:22
14 again. 10:22

15 Q. Do you have a record and trail of when you 10:22
16 receive data sources, if I make a request? 10:22

17 MR. ANSORGE: Objection. Vague, form, and 10:22
18 compound. 10:22

19 THE WITNESS: I don't know what would be a 10:22
20 record trail. I can tell you I have -- I recall 10:22
21 sending e-mails to counsel. I'm not sure whether this 10:22
22 is privileged or not. I'm not a lawyer. You guys 10:23
23 have to figure that out. Saying, ah, I would like 10:23
24 this run or can you run this test for me on this data, 10:23
25 you see. And so if you are -- 10:23

1	BY MR. MAO:	10:23
2	Q. If you have the data source, right, you	10:23
3	would have listed it in your report; correct?	10:23
4	MR. ANSORGE: Objection. Asked and answered	10:23
5	a number of times now, Mr. Mao.	10:23
6	BY MR. MAO:	10:23
7	Q. We've got seven hours with you, Professor.	10:23
8	I'm going to be going after this for a long time.	10:23
9	A. So I -- if you -- okay. So here is what --	10:23
10	I don't know if this is helpful for you, but I'm	10:24
11	really trying hard here to help as much as possible.	10:24
12	Q. I appreciate it.	10:24
13	A. My report was submitted June 7th. I	10:24
14	remember having back and forth, asking counsel to run	10:24
15	some tests on data all the way until the last couple	10:24
16	of days. And hence this is after May -- you said what	10:24
17	was the date? -- I mean it's after towards the end of	10:24
18	May. I don't remember the exact date you mentioned	10:24
19	earlier.	10:24
20	I had and I have access to the data, but I	10:24
21	didn't want to use resources that I have through USC	10:24
22	to run experiments.	10:25
23	You understand why. It's not allowed. It's	10:25
24	not the right -- it's not within the policy of USC.	10:25
25	So I am instructed with very specific	10:25

1 instructions, some people from the counsel's side, to 10:25
2 run some analysis. And I am referring to this 10:25
3 analysis in my report. I offered to go through this. 10:25
4 You said you don't want to do it now. That's fine. 10:25
5 And they did it. 10:25
6 So that's the most precise recollection of 10:25
7 the whole process that I'm giving you. 10:25
8 So I don't know if this answers your 10:25
9 question or if it at least helps. 10:25
10 Q. And that's the entire process up to 10:25
11 June 7th; right? 10:25
12 MR. ANSORGE: Objection. Mischaracterizes 10:25
13 prior testimony. 10:25
14 THE WITNESS: I don't know what you mean by 10:25
15 the entire process. 10:25
16 So when it comes to processing data -- let 10:25
17 me help this way: When it comes to processing data, 10:26
18 whose findings -- whose results are in my report, the 10:26
19 process I recall following is the one I described. 10:26
20 BY MR. MAO: 10:26
21 Q. Got it. 10:26
22 And the tests that you're referring to, 10:26
23 right, refer to your analysis against the sources you 10:26
24 listed in your report. 10:26
25 Isn't that correct? 10:26

1 A. Rather than going to the four sources 10:26
2 because, as I said earlier, I don't really remember 10:26
3 the last two sources, what exactly they are, but I do 10:26
4 remember the first two sources, what they are, the 10:26
5 reason being I could see them in appendix. 10:26
6 They are referring to the analysis that I 10:27
7 have done with respect to IP addresses, UAs, and UAs 10:27
8 as it relates to -- I'm going to find the appendix to 10:27
9 point it out to you again -- as it relates to 10:27
10 appendix D, and there could be other places in the 10:27
11 report. I could go through paragraphs and just list 10:27
12 paragraphs for you. 10:27
13 BY MR. MAO: 10:27
14 Q. I'm not asking for the paragraphs. 10:27
15 I'm asking for the sources in which you 10:27
16 actually ran tests against. They're limited to what 10:27
17 was in your report. 10:27
18 Isn't that correct? 10:27
19 A. To the best of my understanding, yes. 10:27
20 Again, I'm answering this way because there 10:27
21 are so many documents and data sources, it's kind of 10:27
22 hard for me to follow all the legal steps that you 10:27
23 guys understand and I don't. 10:27
24 Q. Or is it that you don't understand because 10:28
25 you had your counsel run the tests for you? 10:28

1	MR. ANSORGE: Objection. Argumentative.	10:28
2	THE WITNESS: No. This is --	10:28
3	MR. MAO: That's actually in the record.	10:28
4	BY MR. MAO:	10:28
5	Q. Did you run the test yourself, Professor, or	10:28
6	did you have your counsel run the test?	10:28
7	A. So let me answer your first question first.	10:28
8	No, it is not because I had my counsel run	10:28
9	the test for me.	10:28
10	And the reason why this is not the case is	10:28
11	because, as I said, I oversaw the experiments. And	10:28
12	the only reason why I didn't run the experiments	10:28
13	myself is because I didn't want to use the computing	10:28
14	facilities that I have to my disposal myself, which is	10:28
15	that of USC, and that wouldn't be proper.	10:28
16	But I did send very specific instructions	10:28
17	about what to run.	10:28
18	So, no, this is not the reason why.	10:28
19	Could you please now repeat the second	10:28
20	question after this one? There was another question.	10:29
21	Maybe you can re- --	10:29
22	BY MR. MAO:	10:29
23	Q. Yeah.	10:29
24	I'm just trying to figure out: Who actually	10:29
25	ran the test; you or your counsel?	10:29

1 A. As I said, it was me who oversaw the tests, 10:29
2 asked specifically what needs to be done, gave 10:29
3 specific instructions. 10:29

4 And if you don't mind me drawing the 10:29
5 parallel here, this is how I have been running 10:29
6 experimental tests for the last 20 years that I've 10:29
7 been a professor. 10:29

8 So I have my Ph.D. students and I tell them 10:29
9 I would like this test to be conducted. I explain what 10:29
10 needs to be done. I give instructions. They send me 10:29
11 the results back and -- because this also happened in 10:29
12 this case. That's why I'm giving there's a parallel. 10:29

13 And then I say, well, why this looks like 10:29
14 that? Is this exactly what you did? Is this what you 10:30
15 did? Is this what you did? 10:30

16 And then they give back and get back to me 10:30
17 with some other numbers. 10:30

18 So I pretty much followed the exact same 10:30
19 process. 10:30

20 I guess -- does this shed some light on the 10:30
21 process? So I -- 10:30

22 Q. Yeah. But I'm -- 10:30

23 A. You're saying -- so just to -- I am in 10:30
24 charge of the tests. The same way I am in charge of 10:30
25 the tests in the context of me being a faculty and a 10:30

1 Ph.D. advisor of a number of Ph.D. students. And I 10:30
2 get a very large grant from the government, from the 10:30
3 industry. I am in charge. I have my students helping 10:30
4 me. 10:30

5 I guess similarly with, Mr. Hochman. I 10:30
6 don't know actually how he operates. But my 10:30
7 understanding is that he has some people working for 10:30
8 him. So I don't know -- 10:30

9 Q. Again, I'm asking about yours. 10:30
10 Okay? 10:30

11 Please don't burn my time on extraneous 10:30
12 answers. 10:30

13 All I'm simply asking is who ran the tests 10:30
14 for you; right? 10:30

15 MR. ANSORGE: Mr. Mao -- 10:31
16 BY MR. MAO: 10:31

17 Q. Who ran the tests for you? 10:31
18 MR. ANSORGE: Objection. Argumentative. 10:31
19 Please let the witness answer your questions. And 10:31
20 asked and answered. You've been asking the same 10:31
21 question repeatedly. So when it comes to burning 10:31
22 time, I think you should consider what you're using 10:31
23 your time for. 10:31

24 BY MR. MAO: 10:31
25 Q. Let me ask you, Professor. 10:31

1 Do you or do you not know whether or not the 10:31
2 data sources listed in the sanctions order is actually 10:31
3 part of your report in terms of sources considered? 10:31
4 That's a simple yes-or-no question. Do you or do you 10:31
5 not know? 10:31
6 A. I do not remember. As I said multiple 10:31
7 times, it's a big report. It's been a lot of 10:31
8 documents. I do not remember right now its source 10:31
9 file listed in my report, what it corresponds to. I 10:31
10 do remember what is the first two, as I said, but not 10:31
11 the other two. 10:31
12 Q. The first two, as in the first two listed on 10:31
13 your report, or the first two listed on the sanctions 10:32
14 order? 10:32
15 A. The first two listed on my report. 10:32
16 Source files, it has four bullets; right? I 10:32
17 remember -- 10:32
18 Q. Yes. 10:32
19 A. -- the first two. I don't remember about 10:32
20 the other two. That's -- 10:32
21 Q. Right. 10:32
22 So do you know whether or not any of those 10:32
23 four files are files referenced in the sanctions 10:32
24 order? 10:32
25 A. I wouldn't know. And if you want me -- you 10:32

1 could point me to specific page in the sanctions order 10:32
2 to see if I can somehow figure it out now. I'm not 10:32
3 trying to -- 10:32
4 Q. Sure. Sure. Yeah, yeah, yeah. That's 10:32
5 fair. So let's do that. Let's go back to Exhibit 2. 10:32
6 A. Okay. 10:32
7 Q. Sorry. I've got the wrong exhibit up. 10:32
8 Okay. Going back to -- let's go to 10:33
9 page 19 -- I'm sorry -- page 28 of the .pdf, 10:33
10 paragraph 92 of the order. 10:33
11 A. Page -- what page on .pdf? I'm sorry? 10:33
12 Q. It's 29 of the .pdf. 10:33
13 A. Page 29 on the .pdf. 19; right? 10:33
14 Q. 92. Paragraph 92. 10:33
15 A. 92. I am there. Yes. 10:33
16 Please go ahead. 10:33
17 Q. Okay. You see how it refers to [REDACTED] logs in 10:33
18 which there is Chrome incognito, and that is Chrome 10:33
19 non-incognito fields in the logs in 2017? 10:34
20 A. Yes. "Specifically in connection with the 10:34
21 Google referred -- (reading to self) any of the [REDACTED] 10:34
22 logs in which the -- in the fields have been logged 10:34
23 since 2017... 10:34
24 (Witness reading to self.) 10:34
25 THE WITNESS: ...all but [REDACTED] of the [REDACTED] 10:34

1 logs -- have been logged since June. 10:34
2 Okay. So your question is whether in my 10:34
3 analysis -- can you repeat now me question about 10:34
4 this -- 10:34
5 BY MR. MAO: 10:34
6 Q. Sure, sure, sure. 10:34
7 Those █ logs there -- 10:34
8 A. Mm-hm. 10:34
9 Q. -- okay, with incognito bits -- 10:34
10 A. Okay. 10:34
11 Q. -- which of those logs were part of your 10:34
12 analysis in your report? 10:34
13 A. I don't remember honestly which of those 10:34
14 █ logs have been analyzed in the context of my 10:34
15 report. 10:34
16 But as I said at the very, very beginning of 10:34
17 this line of questions, there is nothing in my report 10:35
18 that would change because of not looking at all the 10:35
19 █ logs. There is -- these logs are either what they 10:35
20 are called P logs or B logs. And I will be happy to 10:35
21 explain to you the difference between the two because 10:35
22 it's a technical issue. 10:35
23 And regardless of whether it's a P log or a 10:35
24 B log, there is specific logic on the system with 10:35
25 respect to how there may be Chrome incognito bit is 10:35

1 set, what it may or it may not mean, why is it there 10:35
2 or it is not there, and so on. 10:36
3 And since I have reviewed very carefully the 10:36
4 system itself and how it deals with this particular 10:36
5 bit, looking at the subset of these █ logs is enough 10:36
6 for me to make a solid opinion with respect to this 10:36
7 particular bit, how it's used, how it's set, what it 10:36
8 means, what it doesn't mean. So -- 10:36
9 Q. So did you actually look at the code for the 10:36
10 bit? 10:36
11 MR. ANSORGE: Will you please let him finish 10:36
12 answering, Mr. Mao? 10:36
13 THE WITNESS: And the exact same analysis 10:36
14 that I have in my report -- and, again, I will be more 10:36
15 than happy to go through this but I don't want to jump 10:36
16 on it if you don't want me to -- calls for all the 10:36
17 █ logs. There will be no difference whatsoever 10:36
18 between one log or the other log. 10:37
19 BY MR. MAO: 10:37
20 Q. Let's get specific then. 10:37
21 Go page 17 of Exhibit 2, .pdf 17. 10:37
22 A. Okay. Page 1 of the .pdf or of the -- 10:37
23 Q. The .pdf. 10:37
24 A. The .pdf. 10:37
25 I am there, yes. 10:37

1 Q. Where do these logs appear in your report as 10:37
2 a source in which you ran tests? 10:37
3 A. I never said that I have run tests in all of 10:37
4 these logs. 10:37
5 Q. Okay. Did you run tests against any of 10:37
6 these logs? 10:37
7 A. I'm trying to remember. I have to go 10:37
8 through them one by one, but -- 10:37
9 Q. Go ahead. Please do that. 10:37
10 A. I will. 10:37
11 But let me also say that there is -- okay. 10:37
12 The opinion -- I assume that this discussion 10:38
13 is about the maybeChromeincognito field. And 10:38
14 everything I say in my report about the 10:38
15 maybeChromeincognito field is based on the totality of 10:38
16 all the documents that I have listed, all the sources 10:38
17 that I have listed -- not just the source code. All 10:38
18 the sources that I have listed on my report. 10:38
19 And I'm absolutely confident that what I say 10:38
20 about the maybeincognito -- Chromeincognito field on 10:38
21 my report with respect to what it means, how it is 10:38
22 said, what it doesn't mean, what is its purpose, 10:38
23 et cetera, et cetera, is absolutely precise. 10:38
24 And I can explain to you under all possible 10:38
25 scenarios that you would like to ask me how it is set, 10:39

1 what it means, why it is not set, everything. 10:39
2 So that's the point here. Whether I have 10:39
3 run or I have not run myself or through counsel 10:39
4 specific tests on these [REDACTED] logs, on the subset of 10:39
5 these [REDACTED] logs, would have no effect on what I have 10:39
6 written at this point because what I wrote is based on 10:39
7 testimony from the engineers that wrote the source 10:39
8 code, and they created the system on documents that 10:39
9 they describe the architecture of the system in 10:39
10 detail. And my complete understanding of how the 10:40
11 system operates with respect to the 10:40
12 maybeChromeincognito field. 10:40
13 Q. So, Dr. Psounis, you raised something that's 10:40
14 very curious in this case. 10:40
15 Okay? 10:40
16 Your counsel actually has not allowed 10:40
17 anybody to look at source code as part of this case. 10:40
18 All right? 10:40
19 So now I'm very curious. 10:40
20 What source code are you talking about? 10:40
21 A. I -- I never said I looked at source code. 10:40
22 I -- 10:40
23 Q. Wait, wait, wait. 10:40
24 MR. ANSORGE: Mr. Mao, you need to wait a 10:40
25 minute. You've been jumping on his answers, 10:40

1 interrupting him far too much. We've let it run for 10:40
2 quite a bit. Please give him a moment to answer your 10:40
3 questions. 10:40
4 BY MR. MAO: 10:40
5 Q. My question is source code. 10:40
6 A. Right. 10:40
7 So the reason why I'm answering the words 10:40
8 source code is because you mentioned it a couple of 10:40
9 minutes ago. You basically said -- I don't remember. 10:40
10 I'm sure the stenographer could repeat it, if you 10:40
11 would like, something about source code. 10:40
12 So if that's the only reason why I brought 10:40
13 it up and I said source code, that the Google 10:40
14 engineers, that they were deposed may be the ones that 10:40
15 wrote it. I didn't say anything about me and the 10:41
16 source code. I was referring to source code as an 10:41
17 engineer working in this field for like decades, 10:41
18 knowing that all this distributed network systems are 10:41
19 based on some source code. That's what I meant. 10:41
20 Q. Sure. So let's be clear. 10:41
21 Did you look at any source code as part of 10:41
22 your analysis? 10:41
23 A. I did not look at any Google source code as 10:41
24 part of my analysis. 10:41
25 Q. Okay. Did you look at any Google schemas as 10:41

1	part of your analysis?	10:41
2	MR. ANSORGE: Objection. Vague.	10:41
3	THE WITNESS: Google -- would you please	10:41
4	repeat the word?	10:41
5	BY MR. MAO:	10:41
6	Q. Log schemas.	10:41
7	MR. ANSORGE: Objection. Vague.	10:41
8	THE WITNESS: Log -- what was the next --	10:41
9	BY MR. MAO:	10:41
10	Q. Log schemas.	10:41
11	A. Log schemas?	10:41
12	Q. Logging schemas, yes.	10:41
13	A. I'm sorry. I don't understand what you mean	10:41
14	by logging schemas.	10:41
15	You mean logs like --	10:41
16	Q. The schemas for the logs.	10:41
17	A. I'm sorry. I don't understand.	10:41
18	Q. Do you -- sure.	10:42
19	I mean, you know what a schema is?	10:42
20	MR. ANSORGE: Objection. Vague.	10:42
21	BY MR. MAO:	10:42
22	Q. S-c-h-e-m-a. A schema.	10:42
23	A. I do know what a schema is because it's	10:42
24	actually based on the Greek root. It has a Greek	10:42
25	root, schema in Greek. But I'm not sure -- I don't	10:42

1	understand what you mean by log schema.	10:42
2	Q. Did you look at any of the schemas for any	10:42
3	of the log sources at issue in this case?	10:42
4	A. I don't understand what is a log schema.	10:42
5	Q. Are you aware that schemas were produced for	10:42
6	data sources for Google in this case?	10:42
7	MR. ANSORGE: Objection.	10:42
8	BY MR. MAO:	10:42
9	Q. I'm not trying to trick you. I'm literally	10:42
10	telling you that they were produced.	10:42
11	So my question is whether or not you looked	10:42
12	at them?	10:42
13	A. I am aware that there were logs produced for	10:42
14	this case. I'm not sure what log schemas is.	10:43
15	Q. So structure fields, structure field lists.	10:43
16	Are you aware that that was produced in the	10:43
17	case?	10:43
18	A. Structured...	10:43
19	MR. ANSORGE: I'm sorry, Dr. Psounis. Can	10:43
20	you just wait a moment for me to lodge my objections?	10:43
21	THE WITNESS: I'm sorry.	10:43
22	MR. ANSORGE: Objection. Vague and	10:43
23	ambiguous.	10:43
24	THE WITNESS: Can you please repeat?	10:43
25	Structured...	10:43

1	BY MR. MAO:	10:43
2	Q. Structured field lists.	10:43
3	My question is simply did you look at any	10:43
4	such things for that in this case?	10:43
5	A. Do you have an example that you could show	10:43
6	me so that maybe I can tell you I have seen something	10:43
7	like that or not? So that I --	10:43
8	Q. No. Well, because I'm asking -- it's	10:44
9	actually important to understand whether or not you	10:44
10	looked at it.	10:44
11	A. But --	10:44
12	Q. -- if you didn't look at source code, right,	10:44
13	and I'm trying to understand whether or not you	10:44
14	actually looked at the field structures for specific	10:44
15	data sources in the case.	10:44
16	MR. ANSORGE: Objection. Form. Asked and	10:44
17	answered.	10:44
18	THE WITNESS: I am still trying to	10:44
19	understand. I would have to hypothesize about what	10:44
20	you mean. I'm not trying not to answer. To	10:44
21	hypothesize about what you mean by log schemas. So if	10:44
22	do you have an example, please show it to me because	10:44
23	this is going to just help us move on. I have looked	10:44
24	at logs --	10:44
25	///	

1	BY MR. MAO:	10:44
2	Q. Are you aware of being provided any schemas	10:44
3	in this case?	10:45
4	A. I --	10:45
5	MR. ANSORGE: Objection. Asked and	10:45
6	answered. And vague and ambiguous.	10:45
7	MR. MAO: Part of the court order,	10:45
8	Mr. Ansorge.	10:45
9	BY MR. MAO:	
10	Q. Have you looked at any schemas for any data	10:45
11	sources in this case?	10:45
12	A. Without me fully understanding what schemas	10:45
13	means, I cannot give an accurate answer to this	10:45
14	question.	10:45
15	Q. Okay. Let me give you the Court order.	10:45
16	So it's not going to be Exhibit 3. It's	10:45
17	going to be Exhibit 4.	10:45
18	Okay?	10:46
19	And we'll go back to Exhibit 3 in a little	10:46
20	bit.	10:46
21	A. Exhibit 4 you said?	10:46
22	(Plaintiffs' Exhibit 4 was	10:46
23	marked for identification.)	10:46
24	MR. MAO: Mm-hm. Exhibit 4 is a	10:46
25	transmission dated November 12, 2021.	10:46

1 THE WITNESS: I'm sorry. Let me find it 10:46
2 out. I thought I opened it up. But maybe I need to 10:46
3 refresh my -- ah, okay. Yes. Exhibit 4. 10:46
4 Fax transmission. Yes, I am there. 10:46
5 Go ahead. 10:46
6 BY MR. MAO: 10:46
7 Q. Okay. If you scroll down to page 5, which 10:46
8 is the order for the Brown case -- 10:46
9 A. Mm-hm. Yes. I'm reading the order. I'm 10:46
10 reading line 13 now. 10:46
11 Q. Okay. Yep. 10:46
12 So you see this order -- 10:46
13 A. Mm-hm. 10:47
14 Q. And -- 10:47
15 A. Should I look at the exhibit or. 10:47
16 Q. You should look at these two pages, 5 and 6. 10:47
17 A. Okay. 10:47
18 Q. And the word "schema" appeared here. 10:47
19 MR. ANSORGE: And, Doctor, assuming that 10:47
20 you're not familiar with this document, you're well 10:47
21 within your rights to familiarize yourself with it. 10:47
22 MR. MAO: Yeah. I mean, go ahead and take a 10:47
23 look. 10:47
24 BY MR. MAO: 10:47
25 Q. Okay. So you see under No. 3 there: 10:47

1 "Accordingly, within four days of the 10:48
2 date of this order, Google is to provide 10:48
3 to the special master full schemas, a list 10:48
4 of all fields and their descriptions, a 10:48
5 list of tools used to search the 10:48
6 respective data sources." 10:48
7 A. Can you please tell me the full -- 10:48
8 Q. Yeah. 10:48
9 A. -- the line number? 10:48
10 Q. .pdf page 8. 10:48
11 A. And line number? 10:48
12 Q. Starting with 3. 10:48
13 A. .pdf 8. Okay. I didn't download this one. 10:48
14 Okay. .pdf page 8, 1 to 3. Is this what 10:48
15 you mean? 10:48
16 Q. Mm-hm. 10:48
17 A. Okay. 10:48
18 Q. This is a Court order. 10:48
19 A. Full schemas. Yes. 10:48
20 Q. Okay. Right. 10:48
21 My question -- 10:48
22 A. If schemas is a list of all fields with 10:48
23 their descriptions, then I can tell you what this is. 10:48
24 Are schemas a list of all fields with their 10:48
25 descriptions or -- 10:48

1 Q. Yes. Yes. Let's use that. 10:48
2 A. So when I'm looking at logs, usually at the 10:49
3 top of the logs, you could have a way to have fields 10:49
4 with their descriptions, or in a separate file -- I 10:49
5 don't know if this is what schemas you're referring 10:49
6 to. Somebody may say this is a log that has, for 10:49
7 example, two columns. Column 1 is your name. 10:49
8 Column 2 is your birth date. 10:49
9 If this is what you're asking, I -- when I 10:49
10 was looking through the logs, I was aware of what 10:49
11 it's -- so let me say this as follows: 10:49
12 Logs consist of data logs or datasets 10:49
13 consist of multiple entries. Each entry 10:49
14 essentially -- each row is a separate data point in 10:50
15 the dataset or a separate -- you want to call it line, 10:50
16 row, input, entry on the log. 10:50
17 Now, usually the way they are structured is 10:50
18 that each of these lines or rows may consist of 10:50
19 multiple subentries, numbers, strings, whatnot. 10:50
20 So when we talk about fields with their 10:50
21 descriptions, we usually mean that if, for example, 10:50
22 you have a row with, let's say, four fields, so 10:50
23 essentially there are four columns on this big data 10:50
24 log, some would say, okay, what does the first field 10:50
25 mean? What is it? 10:50

1 So I would assume that this is what you have 10:50
2 been asking me. And when I look at the log, let's say 10:51
3 P log and B log, right, so there are different things 10:51
4 that they are -- multiple things that they are there 10:51
5 at each log. 10:51

6 For example, if you look at the -- log -- 10:51
7 some of the logs, as you have -- some of the Google's 10:51
8 logs that you have pointed out yourself, and my 10:51
9 understanding is that this motion is about whether 10:51
10 Google has produced all such logs or not. Some of 10:51
11 these logs are at each of these rows that I'm 10:51
12 describing, they may have as a field, the value, the 10:51
13 bit value, of the maybeChromeincognito. 10:51

14 And I'm getting back to this because my 10:51
15 understanding is that this is what you are interested 10:51
16 in. That's the only reason. 10:51

17 Q. Yeah, yeah, yeah. Right. 10:51

18 So what I'm interested in and -- Professor, 10:52
19 is whether or not you asked for all of these available 10:52
20 fields for the data sources in which you considered? 10:52

21 MR. ANSORGE: Objection. Vague. Form. 10:52

22 And when you get a chance, Counsel, we're 10:52
23 almost at two hours. It would be great to have break. 10:52

24 THE WITNESS: Every time I look at logs, any 10:52
25 logs, either for this case or for my research, I make 10:52

1 sure I understand what the logs are about. 10:52
2 So the most accurate answer would be what I 10:52
3 just said. So, you know, you ask for all the fields. 10:52
4 I make sure whenever I see a dataset that I understand 10:52
5 exactly what it's -- you know, field these, and in 10:53
6 that case, too, when I look at datasets, logs, I would 10:53
7 have an understanding of what each of the fields at 10:53
8 each row is. 10:53
9 BY MR. MAO:
10 Q. Right. But -- 10:53
11 A. Otherwise I would have asked for 10:53
12 clarification. 10:53
13 You see what I mean? 10:53
14 I don't want to say I explicitly asked for 10:53
15 these schemas. 10:53
16 But the point is when I look at the log and 10:53
17 I go at column 5, right, and I say, "Oh, what is this 10:53
18 number now? What does this mean," I would ask, "What 10:53
19 does this mean?" 10:53
20 And then I guess they would send me a schema 10:53
21 or they may say, "Ah, this is what it means." 10:53
22 Does this help you? 10:53
23 Q. It does. But I'm going back to Exhibit 4; 10:53
24 right? Because what Exhibit 4 says: 10:53
25 "Google is to provide to the special 10:53

1 master full schemas a list of all fields" 10:53
2 in caps "with their descriptions." 10:53
3 And what I'm asking you is: Did you analyze 10:53
4 that type of full schema as part of your opinion for 10:53
5 all the data sources in which you considered? 10:54
6 MR. ANSORGE: Objection. Compound. Asked 10:54
7 and answered a number of times now. And foundation as 10:54
8 well. And calls for legal conclusion. 10:54
9 And whenever you find a natural stopping 10:54
10 point, Mr. Mao, it would be great to have a break. 10:54
11 BY MR. MAO: 10:54
12 Q. Please answer my question, Professor. 10:54
13 A. I'm trying to -- 10:54
14 Q. Go ahead and look at that order again, 10:54
15 please. 10:54
16 A. No. My understanding is that I already 10:54
17 answered this, but I'm trying to paraphrase it in a 10:54
18 way that both of us are happy; right? I don't want to 10:54
19 make -- I don't this to look as if I'm -- so the 10:54
20 analysis that I have conducted is take -- when -- the 10:54
21 analysis that I have conducted using logs is taking 10:55
22 into consideration all the information inside these 10:55
23 logs. 10:55
24 How about that? 10:55
25 I could answer yes to your question. Yes, I 10:55

1 have considered everything, but since I can't -- 10:55
2 Q. No, no, no, no. But my question -- okay. 10:55
3 A. You see -- 10:55
4 Q. Have you requested -- have you requested -- 10:55
5 have you requested -- okay. Have you requested full 10:55
6 schemas with a list of all fields and their 10:55
7 descriptions for each of the data sources in which you 10:55
8 considered and listed in your report? 10:55
9 MR. ANSORGE: Objection. Asked and answered 10:55
10 a number of times now. 10:55
11 Love that break when you get a chance, 10:55
12 Mr. Mao. 10:55
13 THE WITNESS: If -- how about that? If I 10:55
14 had any doubt about any data entry in any of the logs 10:55
15 I have looked at any point in time, I can assure you 10:55
16 that for sure I have requested additional information 10:56
17 to make sure that I have a complete understanding of 10:56
18 all the data points inside the log that I have been 10:56
19 looking at. 10:56
20 And I believe this is the essence here. It 10:56
21 is not the case ever that I was drawing conclusions 10:56
22 from a log whose contents I don't fully understand. 10:56
23 BY MR. MAO:
24 Q. But have you -- have you run across any 10:56
25 logs, okay, in which you do not believe that the full 10:56

1 schema was reflected? 10:56
2 MR. ANSORGE: Objection. Vague. Compound. 10:56
3 THE WITNESS: I don't think so. I 10:57
4 wouldn't -- you mean somebody change the logs? 10:57
5 Somebody messed with the logs and gave me... 10:57
6 BY MR. MAO: 10:57
7 Q. Or the logs you're reviewing is not the full 10:57
8 log. That's what I'm asking. 10:57
9 A. Somebody -- yes. 10:57
10 Q. I'm trying to understand whether or not when 10:57
11 you looked at all the data sources, you said, "Hey, 10:57
12 can you make sure you give me the full log?" 10:57
13 A. Okay. Now I understand -- 10:57
14 MR. ANSORGE: Mr. Mao, asked and answered. 10:57
15 And please stop interrupting the witness. 10:57
16 MR. MAO: I don't think so. I think -- 10:57
17 MR. ANSORGE: He's trying to respond. 10:57
18 MR. MAO: -- the effect here is very clear. 10:57
19 He's helping being elucidated so that we can actually 10:57
20 talk about and move on to the next topic. 10:57
21 MR. ANSORGE: Right. But I'm also thinking 10:57
22 of the court reporter who has been going for almost 10:57
23 two hours. I think at some point pretty soon a break 10:57
24 would be appropriate. 10:57
25 MR. MAO: I'd like to just get through these 10:57

1 questions. Yeah. 10:57

2 THE WITNESS: I do not -- I never felt or 10:57

3 thought that the logs I am being provided with are -- 10:58

4 you know, are not clear to me with respect to what 10:58

5 they mean and what they have. 10:58

6 And if you are alluding that somebody may 10:58

7 have removed parts of the log and gave them to me, 10:58

8 this is not a possibility that I have considered. 10:58

9 When somebody's giving me a log, and I'm 10:58

10 saying I would like to see this log, I would assume 10:58

11 that this is the log that I am to study. If there is 10:58

12 a something -- 10:58

13 So have I every single time asked for what 10:58

14 you call a full schema? 10:58

15 Since I'm not an attorney and I'm not aware 10:58

16 of all these motions that you are presenting here, 10:58

17 right, you do understand that, I am not into -- as an 10:59

18 expert witness, a technical expert witness, I am not 10:59

19 into, right, make sense, saying -- 10:59

20 BY MR. MAO:

21 Q. Right. 10:59

22 A. -- "Are you giving me the full log?" 10:59

23 Of course I'm getting the full log is my 10:59

24 understanding. And if I see something that it's 10:59

25 weird, I would always bring this up. 10:59

1 Q. Right. 10:59

2 A. So there's nothing that looked weird to me 10:59

3 in the logs that I have considered. 10:59

4 But I don't want, as a matter of precision, 10:59

5 use this particular wording I have used -- I have 10:59

6 forever seen a log, requested the full schema. 10:59

7 Because this full schema is not in my vocabulary. You 10:59

8 see what I mean? It's something that the Court 10:59

9 described like that in the context of this case for 10:59

10 you guys. You guys are the -- for the attorneys, the 10:59

11 lawyers, my counsel to handle. You understand what I 10:59

12 mean? 10:59

13 I am after this. So you guys figure out 10:59

14 whatever is going on and, then I'm -- I am a technical 11:00

15 expert; right? I'm saying can I have the logs, 11:00

16 please? And then I'm getting the logs. And then I'm 11:00

17 making sure I fully understand what is in the logs I'm 11:00

18 looking at. 11:00

19 I am assuming that you guys are talking to 11:00

20 each other and the Court and you are figuring out what 11:00

21 should and should -- hopefully this clarifies further. 11:00

22 BY MR. MAO: 11:00

23 Q. Right. 11:00

24 So all the logs you listed in your report 11:00

25 are all the logs in which you looked at. 11:00

1 Is that correct? 11:00

2 MR. ANSORGE: Objection. Mischaracterizes 11:00

3 prior testimony. 11:00

4 THE WITNESS: I'm not sure about that 11:00

5 because there are a lot of logs. Definitely I have 11:00

6 looked at the logs that I list in my report. There 11:00

7 could be other logs, but I don't know. I don't want 11:00

8 to say something and then mess up the legal stuff 11:00

9 because of my ignorance about the legal stuff. You 11:00

10 understand? I'm not a lawyer. 11:00

11 I did my best to include on my report logs 11:00

12 that I have looked at. 11:01

13 BY MR. MAO: 11:01

14 Q. And you do not believe that there is any 11:01

15 reason for you to ask for additional logs in addition 11:01

16 to what you have listed in your report in order to 11:01

17 clarify your analysis when you wrote your report. 11:01

18 Isn't that correct? 11:01

19 MR. ANSORGE: Objection. Form. Compound. 11:01

20 THE WITNESS: In my report, I say that if 11:01

21 you have information -- again, I'm saying this -- I 11:01

22 believe what you're thinking -- but if new information 11:01

23 comes to light, I reserve the right to revisit, 11:01

24 et cetera, et cetera. 11:01

25 Based on the information I have seen up to 11:01

1 this moment that I'm talking to you, I do not believe 11:01
2 that I need to request additional logs. I believe 11:01
3 that what is in my report that we both have as of 11:01
4 June 7th is precise, accurate, and valid with all the 11:02
5 information I have received myself up to this moment 11:02
6 that we are talking. 11:02
7 BY MR. MAO:
8 Q. Right. 11:02
9 And your report, right, the last time in 11:02
10 which you received logs and sources was June 7, 2022. 11:02
11 Is that correct? 11:02
12 Because you wrote your opinion then. 11:02
13 MR. ANSORGE: Objection. Mischaracterizes 11:02
14 prior testimony. 11:02
15 And -- what about that break, Mr. Mao? 11:02
16 THE WITNESS: Maybe we should have a break. 11:02
17 MR. ANSORGE: We're at two hours. 11:02
18 MR. MAO: Wait, wait, wait. We're pending a 11:02
19 question. 11:02
20 Okay? 11:02
21 Ms. Stenographer, can you please just read 11:02
22 back the question? I'm just trying to finish this. 11:02
23 (Court Reporter reads back.) 11:02
24 THE WITNESS: I remember something now. 11:03
25 Okay. I don't think that the last logs I 11:03

1 have reviewed were as of June 7th because I recall 11:03
2 seeing some -- seeing some logs after that about the 11:03
3 maybe incognito Chrome bit. 11:03
4 So the Exhibit 2 was saying that Google 11:03
5 didn't provide all the logs and there were additional 11:04
6 logs; correct? 11:04
7 BY MR. MAO: 11:04
8 Q. Yeah. They were sanctioned for that. 11:04
9 A. Right. 11:04
10 Q. Yes. 11:04
11 A. I recall seeing -- I recall seeing a log 11:04
12 recently. My understanding is that Google produced 11:04
13 some additional logs; right? 11:04
14 Q. Yes. In terms of the names identifying 11:04
15 them, yes. 11:04
16 A. So I recall seeing parts of these additional 11:04
17 logs. I believe they were produced after -- I don't 11:04
18 know, actually. I don't want get into the dates 11:04
19 stuff. I'm not a technical expert. But I recall 11:04
20 seeing parts of this additional logs that Google 11:04
21 produced recently. I don't know exactly when. And 11:04
22 that was recent. So it must be after -- it is after 11:05
23 June 7th. 11:05
24 Q. Other than that, okay, are all the logs in 11:05
25 which you've seen listed in your June 7 report and 11:05

1	received by June 7th, 2022 for your report?	11:05
2	MR. ANSORGE: Objection. Mischaracterizes	11:05
3	prior testimony. And asked and answered so many times	11:05
4	over now.	11:05
5	THE WITNESS: So as I said, I did the best	11:05
6	job I could to list all the logs I have seen prior to	11:05
7	June 7th on my report dated June 7th. But I cannot be	11:05
8	a hundred percent certain because there are so many	11:05
9	logs and so many documents that there is no other log	11:05
10	or data that I have seen that somehow failed to find	11:05
11	its way in the report. I'm being entirely, you know,	11:05
12	accurate and...	11:06
13	MR. ANSORGE: Mr. Mao, it's starting to	11:06
14	verge on harassment. We're past two hours now.	11:06
15	MR. MAO: You're -- we can take a break.	11:06
16	Your witness hasn't answered --	11:06
17	MR. ANSORGE: Absolutely --	11:06
18	MR. MAO: Yeah.	11:06
19	MR. ANSORGE: -- he did. And I've been	11:06
20	requesting --	11:06
21	MR. MAO: No, he did not.	11:06
22	MR. ANSORGE: -- a break at least for the	11:06
23	last 20 minutes.	11:06
24	He did, and you can go and review the	11:06
25	testimony in the break.	11:06

1	But I think a break is appropriate for	11:06
2	everybody.	11:06
3	MR. MAO: Sure. Let's take a break. I will	11:06
4	have questions.	11:06
5	Thank you.	11:06
6	THE WITNESS: Thank you very much.	11:06
7	THE VIDEOGRAPHER: Going off the record.	11:06
8	The time is 11:06 a.m.	11:06
9	(Break taken in proceedings.)	11:06
10	THE VIDEOGRAPHER: Back on the record. The	11:20
11	time is 11:20 a.m.	11:20
12	BY MR. MAO:	11:20
13	Q. Hi, Professor.	11:20
14	Did you and Mr. Ansorge speak during the	11:20
15	break?	11:20
16	A. We do have -- we had a brief chat. He	11:20
17	reminded me to take my time reviewing documents, if I	11:20
18	have to.	11:20
19	Q. Did you talk anything about the substance of	11:20
20	the case?	11:20
21	A. No.	11:20
22	Q. Did you talk about anything about the	11:20
23	substance of your testimony?	11:20
24	A. No.	11:20
25	Q. Okay. So going back into Exhibit 2, if you	11:20

1 don't mind. 11:21
2 A. Exhibit 2. Let me get back to my -- 11:21
3 Q. Yeah. No problem. 11:21
4 And I'm going to go to page 17, by the way, 11:21
5 once you're there. 11:21
6 A. Exhibit -- ah, yeah, yeah, yeah. Exhibit 2 11:21
7 is the one we were discussing before. Yes. I have a 11:21
8 local copy. I'm just going to look at my local copy 11:21
9 again. 11:21
10 Perfect. Yes, I'm there. 11:21
11 Q. Okay. 11:21
12 A. What page you would like me to go -- 11:21
13 Q. 17 of the .pdf On .pdf pagination 17. 11:21
14 A. It's a different... 11:21
15 I open the document of the body and not with 11:21
16 the other one. 11:21
17 So can you tell me page 17 of the .pdf, what 11:21
18 page it is on the -- 11:21
19 Q. It would be 7. 11:21
20 A. Okay. 11:22
21 Q. It looks like this. 11:22
22 A. Yeah, yeah, yeah. I'm almost there. 11:22
23 Page 17 of 58. A list of logs. 11:22
24 Q. Yes. 11:22
25 A. Yes, I'm there. 11:22

1 Q. My question is: Are these the logs that you 11:22
2 said that you saw for the first time after June 7? 11:22
3 MR. ANSORGE: Objection. Mischaracterizes 11:22
4 prior testimony. 11:22
5 THE WITNESS: I don't -- let me -- I don't 11:22
6 remember seeing these logs, no. I don't remember. I 11:22
7 know I saw some additional logs, but I don't remember 11:23
8 their name. 11:23
9 BY MR. MAO: 11:23
10 Q. Were these logs -- 11:23
11 A. I also saw a list of logs but not the logs 11:23
12 themselves. There are too many logs. I'm sorry. I 11:23
13 wouldn't remember by looking at the names. 11:23
14 Q. But these things, these lists and logs that 11:23
15 you saw after your report was issued, these are not 11:23
16 logs or lists of logs actually referenced on your 11:23
17 report. 11:23
18 Is that correct? 11:23
19 MR. ANSORGE: Objection. Form. 11:23
20 THE WITNESS: I don't -- I cannot answer 11:23
21 this precisely because I still don't remember what are 11:23
22 the last two in this list. 11:23
23 As I said, I'm trying to remember exactly 11:23
24 what I said. I said I remember looking at parts of a 11:23
25 log after June 7th. 11:24

1 I don't remember which log is this, meaning 11:24
2 definitely I wouldn't remember the name of the log. 11:24
3 And I also remember seeing a list of logs after 11:24
4 June 7th. 11:24
5 That's what I can tell with certainty. 11:24
6 BY MR. MAO: 11:24
7 Q. I'm simply trying to figure out, Professor, 11:24
8 whether or not you were given logs or lists of logs 11:24
9 after your report was issued that was not initially 11:24
10 listed on your report? 11:24
11 MR. ANSORGE: Objection. Form. 11:24
12 THE WITNESS: No. I apologize for not being 11:24
13 able to help. I honestly don't remember all the 11:24
14 logs -- all the names of the logs in this case. But 11:24
15 I'm going to -- let me say again, I said it already, 11:24
16 but since all these logs about the -- I assume -- no. 11:24
17 They are about the maybeChromeincognito field, there 11:25
18 is nothing -- nothing in my narrative, I believe, the 11:25
19 one about the maybe incognito field that would depend 11:25
20 on a specific log. 11:25
21 So I'm telling you that's my technical 11:25
22 expert opinion on this. 11:25
23 I have a good understanding of the type of 11:25
24 logs that Google keeps after looking at the documents, 11:25
25 that they describe the architecture of the system, how 11:25

1 they set this fields, et cetera. And the opinion 11:25
2 about the maybeChromeincognito field that I have in 11:25
3 there -- and, again, I would be more than happy to go 11:25
4 through it and with any scenarios you may want to ask 11:25
5 me -- does not really depend on a specific log. It is 11:25
6 valid across all logs, given my understanding of the 11:25
7 logs that they have and how they populate them. 11:26

8 I'm saying this because it may help you. 11:26
9 That's why I'm saying this, meaning -- 11:26

10 BY MR. MAO:

11 Q. Yeah. So -- 11:26
12 A. -- in particular log A or log B is the one 11:26
13 that I have seen or I am listing on the report. It's 11:26
14 immaterial, in my opinion. I'm just saying, given how 11:26
15 I'm forming my opinion. 11:26

16 Q. So in your opinion, you don't actually need 11:26
17 to look at the logs themselves or the data generated 11:26
18 from the logs in order for you to make your 11:26
19 conclusions, the conclusions that you made. 11:26

20 Is that correct? 11:26

21 MR. ANSORGE: Objection. Form and 11:26
22 mischaracterizes prior testimony. 11:26

23 THE WITNESS: So this is not what I said. I 11:26
24 didn't say that I don't need to look at the logs. I 11:26
25 said that my opinion is valid for all, regardless of 11:26

1 specific logs, given that I have a very good 11:27
2 understanding of the type of logs about the data at 11:27
3 issue in this case. 11:27
4 I don't want to make a general statement 11:27
5 but, you know, also looking at logs is not helpful. 11:27
6 BY MR. MAO: 11:27
7 Q. But you realize -- well, do you have to look 11:27
8 at logs in order for you make an opinion in this case? 11:27
9 A. Depends on the opinion. If you want to ask 11:27
10 me about a specific opinion -- 11:27
11 Q. Sure. Let's start with opinion 1. 11:27
12 A. Opinion 1. 11:27
13 Q. "Users can be readily identifiable from the 11:27
14 data at issue." 11:27
15 A. So let me -- 11:27
16 MR. ANSORGE: Objection. Mischaracterizes 11:28
17 Exhibit 1. 11:28
18 THE WITNESS: So what is your question about 11:28
19 opinion 1? 11:28
20 BY MR. MAO: 11:28
21 Q. Right. 11:28
22 You said opinion 1, the way you interpret 11:28
23 it, right, is both that it's Mr. Hochman's opinion 11:28
24 that users can be readily identified from the data at 11:28
25 issue is incorrect. And then you also agree with me 11:28

1 that you were saying that users can be readily 11:28
2 identified from the data at issue is incorrect is 11:28
3 also -- it's an implication of that opinion. 11:28
4 MR. ANSORGE: Objection. Form. Compound. 11:28
5 Vague and ambiguous. 11:28
6 BY MR. MAO: 11:28
7 Q. And my question to you -- my question to 11:28
8 you, Professor, is do those two opinions or two parts 11:28
9 of the same opinion, however you want to phrase it, 11:28
10 depend on you looking at logs and the data that would 11:28
11 be generated from those logs? 11:28
12 A. They do not depend on any specific log 11:29
13 because -- and let me summarize a little bit why I'm 11:29
14 saying this. 11:29
15 Because first, the data at issue here are 11:29
16 not associated at any point with a Google account, you 11:29
17 know. There is no GAIA. 11:29
18 I don't want to use technical terminology 11:29
19 and confuse anybody. But that's one reason, and 11:29
20 that's a fact, regardless of whether I'm looking at a 11:29
21 specific log, log A or log B. 11:29
22 What is more, this data, the data at issue, 11:29
23 are essentially stored in a way that it's an 11:29
24 unidentified state, an orphan state -- I'd be happy to 11:29
25 explain what I mean with these terms -- because they 11:29

1 are keyed to identifiers that they are pseudonymous. 11:30

2 When they are identified as flowing through the 11:30

3 system, they are also encrypted. 11:30

4 These identifiers are not linked to any 11:30

5 users, and they are unique to each private browsing 11:30

6 session. 11:30

7 And I'm saying this because that's the data 11:30

8 at issue; right? The data during private browsing 11:30

9 session. Or they could be keyed to be complete to 11:30

10 pseudonymous identifiers related to website viruses, 11:30

11 you know, what is usually called first-party cases. 11:30

12 Again -- 11:31

13 Q. How do you know that to be true, those 11:31

14 statements you just made? How do you know that they 11:31

15 are empirically true? 11:31

16 A. I will answer this, let me finish what I was 11:31

17 saying before, just to complete my sentence. 11:31

18 Like, you know, PPID, or what is called user 11:31

19 IDs or analytics user IDs. There are too many names. 11:31

20 Sometimes they're not even key to any identifiers at 11:31

21 all. 11:31

22 So how do I know that the two statements I 11:31

23 made are true? 11:31

24 Because the way the system is architected, 11:31

25 designed, and operated is described in documents. And 11:31

1 this is true for any network distributed system, 11:32
2 including Google's. And it is a necessity, if you 11:32
3 think about it because there are hundreds, if not 11:32
4 thousands of engineers involved. So there are 11:32
5 documents that they are basically telling everybody 11:32
6 what they should be doing, what the system should be. 11:32

7 I've been involved in designing distributed 11:32
8 systems, and I can tell you there is no way out of it. 11:32
9 You have to do that, you have to create these 11:32
10 documents that describe the architecture of the system 11:32
11 all the way down to -- 11:32

12 Q. Right, right, right. Let's stop there -- 11:32
13 MR. ANSORGE: Mr. Mao, please -- 11:32
14 MR. MAO: No, no, no, no. 11:32
15 MR. ANSORGE: -- don't interrupt the 11:32
16 witness. He was in the middle of his response and 11:32
17 you've been jumping on the end and the middle of his 11:32
18 questions (sic) -- 11:32

19 MR. MAO: Well, yeah, because he's 11:32
20 running -- he's running on the responses. And I am 11:32
21 going to -- well, otherwise, I'm going to have to seek 11:32
22 to compel him to come back more for more time. 11:32
23 Because he's not answering my questions. 11:32
24 BY MR. MAO:

25 Q. Professor, look, what I'm trying to 11:32

1 understand is these systems you were just talking 11:32
2 about, right, okay, do you understand that the way 11:32
3 that data is stored and used in this case is actually 11:32
4 in dispute? 11:33
5 You understand that; correct? 11:33
6 MR. ANSORGE: Objection. Vague. 11:33
7 BY MR. MAO: 11:33
8 Q. For example, right, like that people cannot 11:33
9 be identified; right? You say people cannot be 11:33
10 identified. Mr. Hochman says that people -- 11:33
11 Dr. Hochman says that they can be identified. 11:33
12 That is actually in dispute. 11:33
13 Do you and I agree on that between the 11:33
14 parties? 11:33
15 A. Mr. Hochman's opinion is different than mine 11:33
16 with respect to whether they can or they cannot be 11:33
17 identified. 11:33
18 But with all due respect, I believe that 11:33
19 Mr. Hochman is wrong, and they cannot be identified. 11:33
20 And I'm explaining why in my report. 11:33
21 Q. Right. Right. 11:33
22 So you said that you looked at systems. 11:33
23 Now I'm trying to understand what -- how did 11:33
24 you go about testing the validity of this dispute at 11:33
25 Google? 11:33

1	MR. ANSORGE: Objection. Form. Vague.	11:33
2	BY MR. MAO:	11:33
3	Q. There's a dispute about how data is actually	11:34
4	stored and used.	11:34
5	How did you go about scientifically proving	11:34
6	that what that you believe is actually empirically	11:34
7	true?	11:34
8	You're telling me that we don't necessarily	11:34
9	have to look at the data.	11:34
10	So I'm asking, okay, if you didn't actually	11:34
11	have to look at the data, what did you do to go	11:34
12	verify, right, empirical analysis of how the data is	11:34
13	actually stored and used? Please tell me the	11:34
14	methodology.	11:34
15	MR. ANSORGE: Objection. Compound. Form,	11:34
16	and argumentative.	11:34
17	THE WITNESS: So let me answer as follows by	11:34
18	saying, first, as a first matter, I am not offering an	11:34
19	opinion on my rebuttal about how you validate whether	11:34
20	an architecture document -- about how you architect a	11:34
21	network distributed system, how you validate	11:35
22	whether -- what the document is describing about how	11:35
23	data are stored and used. I'm not offering an opinion	11:35
24	about how you do this, as you say, empirically. I	11:35
25	don't have an opinion of this on my report. We should	11:35

1 agree on that. 11:35

2 This does not mean that I cannot offer some 11:35

3 thoughts. I can offer thoughts for you, if you want. 11:35

4 So I've been working in this -- in this 11:35

5 field for many, many, many years. I don't want to get 11:35

6 into the legal aspects. I'm not a lawyer. I can tell 11:35

7 you what I do as an engineer, as a researcher. 11:35

8 So if I have a physical documentation, like 11:36

9 I do have here, that describes how a system is 11:36

10 architected, including how data are being stored and 11:36

11 how data are being used, then I consider this to be a 11:36

12 valid and accurate source of information. And I can 11:36

13 form opinions that they are of merit based on these 11:36

14 documents. 11:36

15 Now, in addition, one -- let's say I have my 11:37

16 own system. I build a system with my students and I 11:37

17 create a document, I publish a paper, and it describes 11:37

18 the system, the architecture of the system, how it 11:37

19 operates. 11:37

20 You know, somebody could always say, "Okay. 11:37

21 Can you give me the source code such that I install it 11:37

22 on my machine and I'm going to run it myself?" 11:37

23 But this doesn't mean that somebody cannot 11:37

24 form an opinion, a valid opinion, on the basis of the 11:37

25 official description of the system. 11:37

1 For example, when we publish papers, we 11:37
2 don't provide source code. We describe the system in 11:37
3 detail, and the reviewers are reviewing the paper and 11:38
4 they decide whether this is a meritable paper to be 11:38
5 accepted or not in, you know, very selective 11:38
6 conferences and journals based on the description of 11:38
7 the system that we are offering. 11:38

8 In all distributed systems conferences, this 11:38
9 is how it's done. 11:38

10 And the same thing when we give 11:38
11 presentations, we have slides and we explain the 11:38
12 architecture and how the system works, and it's based 11:38
13 on that description that people form opinions. So... 11:38

14 BY MR. MAO:

15 Q. So, Professor, can I ask then, like, does 11:38
16 that mean that you do not believe that your opinion is 11:38
17 challenging the accuracy of Google's descriptions in 11:38
18 their documentation? 11:38

19 MR. ANSORGE: Objection. Vague. 11:38

20 MR. MAO: Yeah. So let me restate that. 11:38
21 That is a bad question, Mr. Ansorge. 11:39

22 BY MR. MAO:

23 Q. Do you agree with me that your opinions do 11:39
24 not dispute the accuracy of Google's technical 11:39
25 documentation? 11:39

1 A. I am basing my opinions in a number of 11:39
2 sources, including Google's documentation about the 11:39
3 architecture of the system. 11:39

4 I am taking it that it's not a fake 11:39
5 document. It's a document that was produced by 11:39
6 Google, by the Google engineers that they have 11:39
7 architected and designed a particular system, and it 11:40
8 is presenting how the system is designed and how the 11:40
9 system operates. 11:40

10 Of course, there are nuances. You have to 11:40
11 make sure the document is updated; right? The 11:40
12 document is recent enough. There haven't been 11:40
13 changes. Because this is a dynamic environment we are 11:40
14 talking about here; right? They make changes in other 11:40
15 software companies. 11:40

16 I'm making sure of all that. But the basis 11:40
17 of my opinion, as you said, is the documents that I 11:40
18 list. 11:40

19 And by listing them there, there is an 11:40
20 assumption that, yeah, I'm not saying I'm listing a 11:40
21 document that I don't trust, if this is what you're 11:40
22 asking. I'm listing a document. So I'm listing a lot 11:40
23 of documents in my report. I am going by -- I'm going 11:40
24 personally by what the documents are saying and by all 11:40
25 my experience in this area, and all of the other 11:41

1 information and knowledge that I have. 11:41
2 Q. Got it. 11:41
3 So if a Google documentation say that users 11:41
4 in incognito can be identified, do you have any basis 11:41
5 to dispute that? 11:41
6 A. I'm sorry. If what? 11:41
7 Q. If Google documentation says that incognito 11:41
8 users can be identified, do you have any basis to 11:41
9 dispute that? 11:41
10 MR. ANSORGE: Objection. Vague. If there's 11:41
11 a specific document, why don't you show it to the 11:41
12 witness, Mr. Mao. 11:41
13 MR. MAO: I'm asking him the basis for his 11:41
14 opinions, his methodology. 11:41
15 THE WITNESS: It would be very helpful if 11:41
16 you could produce a document that may say something to 11:41
17 that effect. 11:41
18 BY MR. MAO: 11:41
19 Q. But, sir, with all due respect, you're 11:41
20 saying that you're not testing the validity of the 11:41
21 documentation. 11:41
22 So if I show you a Google documentation that 11:41
23 shows the contrary, would -- would your opinion 11:42
24 equally apply and say that that's valid? 11:42
25 A. As I said, if you have an -- 11:42

1	MR. ANSORGE: Objection. Incomplete	11:42
2	hypothetical, and form.	11:42
3	THE WITNESS: If you have -- I'm sorry.	11:42
4	Okay. If you have a document, a specific	11:42
5	document that says something like that, it would	11:42
6	facilitate a lot of this discussion. It would not --	11:42
7	it would use to be hypothetical.	11:42
8	The reason why I'm saying this, I'm not	11:42
9	trying to not answer, is the following:	11:42
10	What is a document? It could be an opinion	11:42
11	of an employee. It could be an e-mail with something	11:42
12	that somebody may hypothetically assume.	11:42
13	What kind of a document are we talking	11:42
14	about? When is the document dated? Is it an official	11:42
15	document? Is it Main document describing the	11:42
16	architecture? Or is it do an -- is it a potential	11:42
17	idea that never got implemented?	11:42
18	Do you see what I mean? So --	11:42
19	Q. Sure, sure, sure.	11:43
20	So are you -- are you testing -- I guess	11:43
21	part of your opinion, are you testing the validity of	11:43
22	either what the plaintiffs' cite Google's documents to	11:43
23	be versus what Google's citing the documents to be?	11:43
24	Like are you testing the validity of that either side	11:43
25	in your opinions?	11:43

1	MR. ANSORGE: Objection -- objection.	11:43
2	Vague. Compound, and form.	11:43
3	BY MR. MAO:	11:43
4	Q. Because, Professor, the problem is you're	11:43
5	saying on the one hand, "I don't need to test the	11:43
6	data," and on the other hand, you're not saying that	11:43
7	you're necessarily trusting the integrity of the	11:43
8	documentation; right?	11:43
9	So it's like which one is it?	11:43
10	MR. ANSORGE: Yeah. Objection to attorney	11:43
11	testimony. Same objection.	11:44
12	THE WITNESS: I did not say either of those	11:44
13	two things. I am not saying that, you know, I don't	11:44
14	necessarily trust you said the documentation. I	11:44
15	didn't say that.	11:44
16	I actually said that source documentation	11:44
17	that I include is a documentation that I have taken	11:44
18	into consideration.	11:44
19	And, for example, if you see two pieces of	11:44
20	documents that they are contradictory, right, then you	11:44
21	may look at the third or a fourth piece of document to	11:44
22	form an opinion. Abstract -- this is hypothetical.	11:44
23	So I am not saying that I don't trust the	11:44
24	documents I'm citing. Quite the opposite. I'm -- I'm	11:44
25	citing sources. I am taking into consideration what	11:44

1 the source documents are saying. 11:44

2 And then I'm following an opinion using the 11:44

3 totality of the picture, if you wish, that these 11:45

4 documents are painting, in view of my experience of 11:45

5 this. And I am not saying either that systems -- I'm 11:45

6 not making a general statement that systems testing, 11:45

7 the testing itself, you know, has no use. 11:45

8 I would -- I don't want to, you know, get 11:45

9 too general here, Mr. Mao, but just think of the 11:45

10 following: 11:45

11 When we have disputes in academia about the 11:45

12 system, say, and someone says, "Can you run some tests 11:45

13 on your system?" Or somebody may say, "I want 11:45

14 complete access of your system. I'm going to" -- "I 11:45

15 want you to give me complete access. I'm going to -- 11:45

16 just send me the source code of your system. I'm 11:45

17 going to install it on my own computers and I'm going 11:46

18 to run all kind of things I want to run." 11:46

19 You know, you can keep going down this path, 11:46

20 and then somebody is going say, "And how are you going 11:46

21 to test the system? What kind of scenarios are you 11:46

22 going to try?" 11:46

23 There are billion different types of 11:46

24 scenarios. 11:46

25 If you could -- I mean, in the area of 11:46

1 network distributed systems, the systems are complex. 11:46
2 We can go on and on and on for multiple 11:46
3 lifetimes. 11:46
4 BY MR. MAO: 11:46
5 Q. Sure. Yeah. I kind of get it. 11:46
6 But, like, Professor, you yourself -- you 11:46
7 yourself agree, you didn't actually go in to test 11:46
8 Google systems; right? 11:46
9 A. Right. 11:46
10 Q. Okay. So let's go back for a moment then to 11:46
11 Exhibit No. 3. 11:46
12 Okay? 11:46
13 If you don't mind pulling it out. I had 11:46
14 introduced that some time ago. 11:46
15 A. I will go there. Give me one second. 11:46
16 Q. Yeah. No problem. 11:46
17 And my first question is going to be whether 11:46
18 or not you've seen that? 11:46
19 A. Let me find it first. One second there. 11:46
20 Exhibit 3. Okay. 11:46
21 (Plaintiffs' Exhibit 3 was 11:46
22 marked for identification.) 11:46
23 THE WITNESS: Give me one second to download 11:47
24 it so I can open it locally. 11:47
25 I did that. Almost there. Exhibit 3. 11:47

1 Okay. It's on my screen. Now let me scroll 11:47
2 through it. 11:47
3 BY MR. MAO: 11:47
4 Q. Yeah. 11:47
5 So just so -- you know, this is a follow-up 11:47
6 declaration on additional logs as a response to the 11:47
7 order that you had seen that was Exhibit 2. 11:47
8 A. This does ring a bell, yes. I believe I 11:48
9 have seen this before. 11:48
10 Q. All right. So you have seen this. Okay. 11:49
11 When did you see this? 11:49
12 A. At some point -- I'm sorry. Go ahead. 11:49
13 Q. Oh, no, no. I was asking you, when did you 11:49
14 see this? 11:49
15 A. I don't remember exactly. Obviously after 11:49
16 my report was submitted since it's dated a week after. 11:49
17 I mean, it should be within -- during the last month 11:49
18 or so. Summertime is also a little bit -- I don't 11:49
19 remember exactly. 11:49
20 Q. Right. 11:49
21 So you see the table of logs on Exhibit A? 11:49
22 A. I do see them, yes. 11:49
23 Q. Were any of those logs considered as part of 11:49
24 your report and analysis? 11:49
25 A. I believe no. Because clearly they didn't 11:50

1 exist. At least for me they were not available to me 11:50
2 before June 7, I assume, based on what I quickly 11:50
3 glanced through the document. I can read it again, 11:50
4 the first paragraphs. They kind of show some timing. 11:50
5 As I said, Mr. Mao -- 11:50
6 Q. Yeah -- 11:50
7 MR. ANSORGE: No, no, no. Don't interrupt 11:50
8 the witness. 11:50
9 THE WITNESS: Again, I'm saying this, again, 11:50
10 to try to be helpful. I don't remember the names of 11:50
11 all the logs that I may have seen; right? So -- but I 11:50
12 can tell you for a fact that based on what I'm reading 11:50
13 in this declaration, it appears that these logs 11:50
14 weren't even available before June 7th. So I can say 11:50
15 I haven't obviously considered these logs for any of 11:51
16 the analysis in my report that it's dated June 7th. I 11:51
17 can say that with certainty. I can. 11:51
18 Even though I don't remember the name of the 11:51
19 logs, just the fact that they were not available makes 11:51
20 me certain that I have not considered them for my 11:51
21 analysis by June 7. 11:51
22 BY MR. MAO: 11:51
23 Q. Can you do me favor and go back up to 11:51
24 paragraph 4 -- 11:51
25 A. Sure. 11:51

1	Q. -- of this?	11:51
2	A. Yes.	11:51
3	Q. Do you mind -- so that thing about the	11:51
4	two-week investigation, you see there in paragraph 4?	11:51
5	A. Yes. I read that.	11:51
6	Q. You see how that is referring to	11:51
7	paragraph 2, that the Court had ordered that Google	11:51
8	must provide plaintiffs with a representation in	11:51
9	writing no later than May 31st, 2022; that other than	11:51
10	the logs identified thus far as containing incognito	11:52
11	detection bits, no other such logs exist.	11:52
12	Do you see that there?	11:52
13	A. I do see it.	11:52
14	Q. Were you involved at all in the	11:52
15	investigation ordered by that Court -- by the Court in	11:52
16	this paragraph 2?	11:52
17	A. No.	11:52
18	Q. Were you involved in the two-week	11:52
19	investigation referenced by Mr. Sramek in working with	11:52
20	Google employee Matt Heron?	11:52
21	A. No. I have no idea about that stuff.	11:52
22	Q. And you never spoke to Mr. Sramek or	11:52
23	Mr. Heron.	11:52
24	Is that correct?	11:52
25	A. It is correct, I have never spoken to them.	11:52

1 Q. Who then gave you this document? And I mean 11:52
2 Exhibit 3, this order -- I'm sorry -- this 11:52
3 declaration. 11:52
4 Who did you get it from? 11:52
5 A. By my counsel. They showed me the document 11:52
6 like a month ago, a few weeks ago. 11:53
7 Q. When you got this document, did you request 11:53
8 any documentation, code, or data? 11:53
9 MR. ANSORGE: Objection. Compound. 11:53
10 THE WITNESS: Not my recollection. Because 11:53
11 this document, it's saying that there are additional 11:53
12 logs that contain the maybeChromeincognito field than 11:53
13 the original logs that they have been served. 11:53
14 And since, as we discussed already, I do not 11:53
15 believe that -- you know, seeing or observing or 11:54
16 analyzing additional logs or logs of that matter would 11:54
17 make any change -- would have any bearing in my 11:54
18 opinion 8 about the maybeincognito feed. 11:54
19 I don't see what could be -- it would be of 11:54
20 no use to request them. As I said, I did not request 11:54
21 any. But I'm also explaining why. Because this logs 11:54
22 are P logs and B logs, like all the other logs. And 11:54
23 the mechanism by which the maybeincognito bit is set 11:54
24 is not in dispute, actually, even by Mr. Hochman. 11:54
25 Mr. Hochman doesn't dispute how the maybeincognito bit 11:54

1 is being set. 11:54

2 BY MR. MAO:

3 Q. Have you actually examined the computer 11:55
4 systems which set this bit and use the data within the 11:55
5 logs? 11:55

6 MR. ANSORGE: Objection. Vague. Ambiguous. 11:55
7 And asked and answered. 11:55

8 THE WITNESS: I believe I have already 11:55
9 answered this, that I have not. I don't have access 11:55
10 to Google's systems. 11:55

11 BY MR. MAO: 11:55

12 Q. Got it. 11:55
13 Can you take a look at Exhibit No. -- I 11:55
14 think it's 5 I just introduced 11:55

17 THE WITNESS: Exhibit 5. One -- the one 11:55
18 that is named "Sealed Order"? Because I don't see -- 11:55
19 ah. Let me refresh my -- let me refresh my -- 11:56

20 BY MR. MAO: 11:56

21 Q. Oh, I am sorry. That is probably my fault. 11:56

22 A. I got Exhibit 5. No, no, no. What I did is 11:56
23 I haven't refreshed my browser. 11:56

24 Now I see Exhibit 5. 11:56

25 Q. Let me just make sure I have the right 11:56

1 Exhibit 5. Now you're making me a little nervous. 11:56
2 Oh, yeah. Yeah. 11:56
3 So Exhibit 5 should be a second supplemental 11:56
4 declaration of Martin Sramek in response to a 11:56
5 May 20th, 2022 order. 11:56
6 A. Yes. I see that. 11:56
7 So you're asking me if I have seen it? I'm 11:56
8 sorry. Please ask your question. 11:56
9 Q. Yeah. Have you seen this document before? 11:56
10 A. Can I please scroll through the document? 11:56
11 So I can tell you I don't think I have seen 11:58
12 this before, but clearly it's very related to the one 11:58
13 we were discussing before. 11:58
14 Do you have a question? 11:58
15 Q. Yeah. So looking at Exhibit -- like 11:58
16 paragraph 7 there, you see that? 11:58
17 A. Yes. 11:58
18 What is the date of this, just out of 11:58
19 curiosity? 11:58
20 Q. August 18th. 11:58
21 A. Ah, okay. August 18th, 2022. Okay. 11:58
22 So you said paragraph 7. 11:58
23 Yes. Let me read -- do you want me to -- 11:59
24 let me read paragraph 7. 11:59
25 Q. Please. 11:59

1 A. I read it. 11:59

2 Q. Okay. You see there how Mr. Sramek says 11:59

3 that he can confirm they produced data sources for 12:00

4 three incognito bits, but he cannot for any other bits 12:00

5 that may contain incognito detection. 12:00

6 Do you see that there at paragraph 7? 12:00

7 A. Yes. 12:00

8 Q. Do you know what other bits he may be 12:00

9 talking about that's for incognito detection? 12:00

10 A. No. 12:00

11 Q. Have you ever asked Google to give you a 12:00

12 list of all logs that would contain incognito bits? 12:00

13 A. No. 12:00

14 Q. Have you ever asked Google for a full list 12:00

15 of all logs that would be deemed relevant in this 12:00

16 case? 12:00

17 MR. ANSORGE: Objection. Vague. Calls for 12:00

18 a legal conclusion. 12:00

19 THE WITNESS: I don't want to get into the 12:01

20 legal stuff because I wouldn't know who and how you 12:01

21 would decide if something is or is not relevant to 12:01

22 this case. 12:01

23 But given that I have not asked -- given 12:01

24 that I answered no on my previous question, I guess to 12:01

25 tell you that the best answer I can give for this 12:01

1 question is also no. 12:01
2 I have not even asked Google to give me all 12:01
3 the logs about any field that may be related to 12:01
4 incognito; right? 12:01
5 No. My answer is no. 12:01
6 MR. MAO: Okay. Why don't we take a break 12:01
7 here as well. It's lunchtime here. 12:01
8 MR. ANSORGE: Okay. I'm fine with going off 12:01
9 the record. That works for us. 12:01
10 MR. MAO: Is that all right? 12:01
11 Can I get a -- sorry. Let's go off the 12:01
12 record first. I apologize. 12:01
13 THE VIDEOGRAPHER: Going off the record. 12:01
14 The time is 12:01 p.m. 12:01
15 (Break taken in proceedings.) 12:01
16 THE VIDEOGRAPHER: Back on the record. The 12:20
17 time is 12:20 p.m. 12:20
18 MR. MAO: Sorry, Professor. Before we -- 12:20
19 sorry. Just -- can we pause for a moment? There's 12:20
20 some noise. I don't know if you hear it. 12:20
21 THE COURT REPORTER: It looks like 12:20
22 Mr. Wright is not muted. 12:20
23 THE VIDEOGRAPHER: Mr. Wright, can you mute, 12:20
24 please? 12:20
25 MR. MAO: Can we go off the record? Let me 12:20

1	call him.	12:20
2	THE VIDEOGRAPHER: Going off the record.	12:20
3	The time is 12:21 p.m.	12:20
4	(Pause in proceedings.)	12:21
5	THE VIDEOGRAPHER: Back on the record. The	12:21
6	time is 12:21 p.m.	12:21
7	BY MR. MAO:	12:21
8	Q. Good afternoon, Professor. We're still back	12:21
9	on the record.	12:21
10	If you don't mind still staying on	12:21
11	Exhibit No. 5, please. I'm still looking at that	12:21
12	paragraph 7.	12:21
13	A. Let me find Exhibit No. 5.	12:21
14	Yes, I am there.	12:22
15	Q. Do you agree with Mr. Sramek, at least in	12:22
16	your expertise, in your experience, that to find all	12:22
17	of the data sources that uses all incognito detection	12:22
18	bits inside Google would take months?	12:22
19	MR. ANSORGE: Objection. Mischaracterizes	12:22
20	Exhibit 5.	12:22
21	THE WITNESS: I'm reading paragraph 7 again.	12:22
22	I'm not sure I can have an opinion about	12:22
23	this because even though I do have an understanding of	12:23
24	Google's system, a good one, to form opinions on the	12:23
25	topics I have in my report, since I never got access	12:23

1 to the Google system myself, I don't know how 12:23
2 streamlined it is or it is not, when it comes to 12:23
3 essentially doing what is described here. 12:23
4 And in particular the Court ordered this 12:23
5 person -- I'm sorry. I don't remember his name -- to 12:23
6 attest that there are no other data sources at Google 12:23
7 in which any field is used by anything to inferring 12:23
8 incognito browser state in any form. 12:23
9 So without knowing more, I cannot make a 12:23
10 useful guess about how long it would take. 12:23
11 BY MR. MAO:
12 Q. So the fact that Google can't locate all of 12:24
13 the incognito traffic and data in its architecture, 12:24
14 even after two years of litigation, is not a surprise 12:24
15 to you in your experience and expertise? 12:24
16 MR. ANSORGE: Objection. Mischaracterizes 12:24
17 prior testimony. Vague and argumentative. 12:24
18 THE WITNESS: I did not say this. Because 12:24
19 the system is very complex, Mr. Mao, it is important 12:24
20 to be very careful with the words. 12:24
21 So paragraph 7 says "data sources at 12:24
22 Google" -- "any other data sources at Google in which 12:24
23 any field is used by any team to infer incognito 12:24
24 browser state in any form." 12:25
25 And I said that I cannot make an informed 12:25

1 opinion on how many months or weeks or whatnot might 12:25
2 be required to do so in a hundred percent precise 12:25
3 manner that this case would require. 12:25
4 You said something else. You used different 12:25
5 words. 12:25
6 BY MR. MAO: 12:25
7 Q. Let me help rephrase this a little bit. 12:25
8 Go back and look at paragraph 2 on this. 12:25
9 Okay? 12:25
10 Because you might need the prompt -- the 12:25
11 prompt what the response was for. That might help. 12:25
12 A. Yeah. Okay. 12:25
13 Q. You recall you saw this in Exhibit 4? 12:25
14 A. Yes. 12:25
15 Q. It's the same Martin Sramek, is my 12:25
16 representation. 12:25
17 A. Yes, yes, yes. I recall that, yes. 12:25
18 Q. Okay. So my question to you is does this 12:25
19 surprise you that basically two months later and over 12:25
20 two years into the litigation, by the way, that Google 12:26
21 still cannot identify all of the incognito data in its 12:26
22 systems? 12:26
23 MR. ANSORGE: Same objection. 12:26
24 THE WITNESS: Paragraph 2 says that "Google 12:26
25 must provide plaintiffs with their representation in 12:26

1	writing that other than the logs identified, no other	12:26
2	such logs exist."	12:26
3	So I guess this paragraph says make sure	12:26
4	there are no other logs. And based on the exhibits	12:26
5	that you showed me so far, apparently there were some	12:26
6	other logs; correct?	12:26
7	BY MR. MAO:	12:26
8	Q. There were.	12:26
9	And so you see he identifies three bits but	12:26
10	he's saying that there may be other bits and would	12:26
11	take months for it to investigate.	12:27
12	And my question to you is: Is that	12:27
13	surprising to you?	12:27
14	MR. ANSORGE: Objection. Mischaracterizes	12:27
15	Exhibit 5.	12:27
16	THE WITNESS: In order to be able to give	12:27
17	you an accurate answer, can you tell me exactly what	12:27
18	you are asking me whether it surprises me or not?	12:27
19	BY MR. MAO:	12:27
20	Q. That after two years of litigation, Google	12:27
21	still cannot figure out all of the bits that identify	12:27
22	incognito and where they sit within the architecture?	12:27
23	A. My reading of this -- I'm not answering yet,	12:27
24	but I'm just pointing out to the fact that my reading	12:27
25	of this is not that Google cannot identify all places	12:27

1 where related to incognito info may be. It says it 12:27
2 will take multiple months, something like that. It 12:27
3 doesn't say they cannot do it; right? 12:28
4 Q. So if you were to go about locating all of 12:28
5 the logs that contain incognito bits, how would you go 12:28
6 about doing that, Professor, as an expert in this 12:28
7 field? 12:28
8 MR. ANSORGE: Objection. Incomplete 12:28
9 hypothetical. Form, and compound. 12:28
10 THE WITNESS: I'm not sure I can answer that 12:28
11 question properly for a system that I have no access 12:28
12 to. And that I would assume it's -- you know, it 12:28
13 started getting built many, many years ago, early 12:28
14 2000s. You know, a lot of things are patched on top 12:28
15 of it while it is changing. 12:29
16 So if I don't have access to it, maybe you 12:29
17 could ask some architect from Google. But I don't 12:29
18 think I can reasonably answer this for this system, 12:29
19 given the level of access that I have to it. 12:29
20 BY MR. MAO: 12:29
21 Q. What would you need to access in order to 12:29
22 ascertain? 12:29
23 A. I'm sorry. Can you repeat? 12:29
24 Q. What would you need to access in order to 12:29
25 ascertain? 12:29

1	MR. ANSORGE: Objection. Form.	12:29
2	THE WITNESS: Could you please rephrase?	12:29
3	What do I need to access in order to?	12:29
4	BY MR. MAO:	12:29
5	Q. Ascertain. You said that you could not	12:29
6	access right now.	12:29
7	And I'm saying, well, how would you do that?	12:29
8	What would you need to do, Professor?	12:29
9	A. In the absence of having -- since I have not	12:29
10	used the system, I don't have access to the system. I	12:30
11	don't have a log-in. I don't have the credentials	12:30
12	that very few people I would guess from Google have to	12:30
13	access all the logs everywhere. I can't really make a	12:30
14	guess that would be of value. I can talk in general	12:30
15	about such systems, but I don't see how this would be	12:30
16	relevant to this particular pretty large, probably	12:30
17	huge, I guess system.	12:30
18	Q. So would I be correct to say that you	12:30
19	yourself also do not know where all the incognito data	12:30
20	sits within Google's architecture?	12:30
21	A. Within Google's architecture, I do know,	12:30
22	based on the architectural documents that I have	12:31
23	reviewed. And I can describe at the architecture	12:31
24	level where they would sit.	12:31
25	But architecture is one thing. And then	12:31

1 when you have a live system that is run for multiple 12:31
2 years and a lot of logs are being created and they are 12:31
3 in multiple places, that is another thing. 12:31
4 I wouldn't be able to tell you because I 12:31
5 don't know obviously, you know. All the logs that -- 12:31
6 in Google may have incognito bits, obviously. 12:31
7 You see, I'm drawing a difference between 12:31
8 architecture, because this is what you said, and what 12:32
9 are all these logs and what are all these logs and 12:32
10 what's the names, et cetera. 12:32
11 Q. Okay. So you don't know where -- do you 12:32
12 know what all the logs are that contain incognito 12:32
13 bits? 12:32
14 MR. ANSORGE: Objection. Vague. 12:32
15 BY MR. MAO: 12:32
16 Q. All these logs -- sorry. 12:32
17 MR. ANSORGE: Asked and answered. 12:32
18 MR. MAO: Sorry. You done with your 12:32
19 objections? 12:32
20 Joey, I don't know if you can see, your 12:32
21 mouth is actually below the line so I actually can't 12:32
22 see you when you're objecting. Sorry. That's why I 12:32
23 interrupted because you dipped below your line. And 12:32
24 then I was like, oh, so -- so that's -- again, the 12:32
25 body queues that we're missing from the live depo. 12:32

1	BY MR. MAO:	12:32
2	Q. So, Professor, let me re-ask.	12:32
3	Do you know what Google is doing with all of	12:32
4	the data that has incognito bits?	12:33
5	MR. ANSORGE: Objection. Vague. Form. And	12:33
6	calls for speculation.	12:33
7	THE WITNESS: If you could give me an	12:33
8	example, like a scenario, that could be very helpful	12:33
9	for me to answer accurately. For example, you asked	12:33
10	me if I know what Google does with all the data that	12:33
11	also having incognito?	12:33
12	Which data? Which scenario? At which log?	12:33
13	And I do have -- I'm going to say it again,	12:33
14	I do have a number of scenarios myself that I describe	12:33
15	in my report. But you can ask me about others too,	12:33
16	other scenarios.	12:33
17	But so general, I don't really, you know --	12:33
18	so forgive me, but you need to understand the	12:33
19	following: For a technical expert, you understand,	12:33
20	right, it has to be more specific.	12:34
21	BY MR. MAO:	
22	Q. Yeah. And you'd be surprised, Professor,	12:34
23	but for a lawyer, you also have to be more specific.	12:34
24	And that's why I'm trying to ask for your help because	12:34
25	I'm hoping maybe the technical person could help me	12:34

1 understand. 12:34

2 Because if you look at paragraph 7, I 12:34

3 actually don't know what other bits may exist out 12:34

4 there; right? 12:34

5 So what I'm asking you is: First, do you 12:34

6 know what these other bits are? And if not, how do I 12:34

7 go about finding them? 12:34

8 MR. ANSORGE: Yeah. Objection. Vague. 12:34

9 Asked and answered. Form. Calls for speculation. 12:34

10 Compound. And foundation as well. 12:34

11 BY MR. MAO: 12:34

12 Q. Again, no, Professor. This was filed last 12:34

13 night so I don't have any more information than this, 12:34

14 and that's why I'm asking you those two questions; 12:34

15 right? 12:34

16 Do you know what else he's talking about and 12:34

17 how do I go about finding those? 12:35

18 MR. ANSORGE: Counsel, he's already told you 12:35

19 he wasn't involved with this investigation, and... 12:35

20 THE WITNESS: I don't know. 12:35

21 BY MR. MAO: 12:35

22 Q. So you don't know what these other bits are 12:35

23 and you wouldn't know how to go find them? 12:35

24 MR. ANSORGE: Yeah. Objection. 12:35

25 Mischaracterizes Exhibit 5. Compound. And asked and 12:35

1 answered many times over now, Mr. Mao. 12:35

2 THE WITNESS: Which bits, again, are you 12:35

3 talking about? I'm reading paragraph 7. "There are 12:35

4 no other data sources at Google in which any field is 12:35

5 used by any team to infer incognito browser state in 12:35

6 any form."

7 I would not -- no, I do not know what 12:35

8 specifically he might be referring to with this 12:35

9 sentence. 12:35

10 BY MR. MAO: 12:35

11 Q. So you, as Google's expert, you also don't 12:35

12 know. 12:36

13 isn't that correct? 12:36

14 MR. ANSORGE: Objection. Form. Asked and 12:36

15 answered. 12:36

16 THE WITNESS. I don't know if he's taking 12:36

17 the sentence from the Court Order. 12.36

so it says Other data sources at Google, 12:30

19 data sources. A lot of things could be in which any 12:36

field, any field, anything that dates anywhere, in any 12:30

21 data source, is used by anything to infer incognitio 12:30

22 BROWSE Books in any Form. 12-50

THE CHIEF IS MADE ONE SCARCE ORDERED BY US TO GO

21 PLEASE THIS IS HIS UNDERSTANDING OF WHAT THIS IS 12-37

While the square ordered, this is a very general type of the set.

1 search. 12:37

2 So I cannot go into some specific bits. I 12:37

3 could not say these are all the bits that they pop up 12:37

4 in my mind, especially given that I am not the 12:37

5 architect of the system; right? Or an architect 12:37

6 within Google that for years has been working with 12:37

7 this system to, you know... 12:37

8 BY MR. MAO:

9 Q. Did you ask for access to Google's systems? 12:37

10 MR. ANSORGE: Objection. Asked and answered 12:37

11 at least three or four times now, Mr. Mao. 12:37

12 MR. MAO: No. He testified that he didn't 12:37

13 have access to the systems. Now I'm asking him if he 12:37

14 asked for access to the systems. 12:37

15 Go read the transcript, Mr. Ansorge. 12:37

16 THE WITNESS: No, I did not ask. 12:37

17 BY MR. MAO:

18 Q. Why did you think it was not necessary to 12:38

19 ask? 12:38

20 A. Because the opinions that I have reached 12:38

21 were fully supported already by the source documents 12:38

22 that I have listed. 12:38

23 And I'm going to say it again, I'll be happy 12:38

24 to go through the opinions and the details of the 12:38

25 opinions and walk you through about why I'm saying 12:38

1 that they are fully supported. 12:38

2 I didn't think that I need to have full 12:38

3 access in order to do a good job in forming the 13 12:39

4 opinions that I have formed. 12:39

5 Q. Similar question: Why did you not ask for 12:39

6 access to data sources outside of what was listed in 12:39

7 your expert report? 12:39

8 A. I believe the answer is also very similar. 12:39

9 It's the same answer. I was confident about the -- I 12:39

10 am confident about the validity, the merit of the 12:39

11 opinions I am listing in my report and analyzing. 12:39

12 Based on all these sources that I have 12:39

13 listed -- and for the record, there are a lot of 12:40

14 sources. I have to go through many, many, many 12:40

15 documents, as you can see. So it's not that I didn't 12:40

16 go through a lot of documents. 12:40

17 Q. And the additional information you saw from 12:40

18 the two Martin Sramek declarations did not change your 12:40

19 opinion as to whether or not you need to access 12:40

20 additional data sources. 12:40

21 Isn't that correct? 12:40

22 A. It is correct. I do not think that I need 12:40

23 to see additional. 12:40

24 Q. And those additional declarations didn't 12:40

25 cause you to change your opinion that you did not need 12:40

1	access to Google's systems.	12:41
2	Is that correct?	12:41
3	A. It is correct. For the reason I described	12:41
4	already, it's more logs.	12:41
5	Q. Have you ever been in a situation where	12:41
6	software works differently than what is described in	12:41
7	the documentation?	12:41
8	MR. ANSORGE: Objection. Vague. Ambiguous.	12:41
9	Incomplete hypothetical. Calls for speculation.	12:41
10	THE WITNESS: I can't recall a situation off	12:41
11	the top of my head. But if you do have something in	12:41
12	mind, meaning if you have some -- some example,	12:41
13	some -- preferably to keep this tight, related to the	12:41
14	data at issue and the case at issue where software is	12:42
15	not doing what the document that is describing the	12:42
16	software it should be doing is doing, should I repeat	12:42
17	this, where the software is not doing what the	12:42
18	document says that it should be doing, I will be more	12:42
19	than happy to go through it.	12:42
20	BY MR. MAO:	
21	Q. Okay. So still at Mr. Sramek's declaration,	12:42
22	paragraph 7, have you seen any documentation on these	12:42
23	additional incognito bits that he's referring to that	12:42
24	he has not yet had time to go find?	12:42
25	MR. ANSORGE: Objection. Vague.	12:42

1 Mischaracterizes Exhibit 5. 12:42
2 THE WITNESS: So he's not referring to 12:43
3 additional incognito bits. Again, I'm trying to be 12:43
4 precise, especially with technical stuff. He is 12:43
5 saying something different. He said "no other data 12:43
6 sources in which any field is used by anything to 12:43
7 infer incognito browser state." 12:43
8 These are not -- he's not talking about any 12:43
9 incognito bits here. 12:43
10 And perhaps I could bring to the discussion 12:43
11 now the following piece of information -- it is in my 12:43
12 report, too -- that this may be a incognito bit for 12:43
13 which I expressed an opinion. And as you can see from 12:43
14 my report -- I'm not going to go in the report 12:43
15 paragraph now. You didn't ask for it. I'm just 12:43
16 trying to help here and say something. 12:43
17 It's basically based in the absence of the 12:43
18 X-Client-Data header. So keep this in mind, because 12:43
19 this may help understand better, I guess what he's 12:43
20 saying here. Because he says, "There are no other 12:44
21 data sources in which any field is used to infer 12:44
22 incognito browser state." 12:44
23 So the field that is used to infer incognito 12:44
24 browser state cited both by Mr. Hochman and myself is 12:44
25 the X-Client-Data header. So you see what I mean, 12:44

1 there are no incognito -- 12:44
2 BY MR. MAO: 12:44
3 Q. But how do you know that from paragraph 7; 12:44
4 that the other sources are dependent upon the X-Client 12:44
5 Data header. 12:44
6 MR. ANSORGE: Objection. Mischaracterizes 12:44
7 prior testimony. Mischaracterizes Exhibit 5, the 12:44
8 Sramek declaration. 12:44
9 THE WITNESS: This is not what I said. I'm 12:44
10 not saying that -- so let me clarify. 12:44
11 I understand this is a technical discussion. 12:44
12 So I am not saying that when he says "in which any 12:44
13 field it must be the X-Client-Data header." 12:45
14 And I don't really want to go into what he 12:45
15 may or he may not mean. I'm trying to help here 12:45
16 saying the following: That there is no reference to 12:45
17 additional incognito bits in this paragraph other than 12:45
18 the three incognito bits in quotation marks. 12:45
19 And I am further explaining that the 12:45
20 maybeChromeincognito bit for which I am offering an 12:45
21 opinion in my report, opinion 8, is basically set 12:45
22 based on the absence of the so-called X-Client-Data 12:45
23 header. That's all I'm saying. 12:45
24 So it is the X-Client-Data header that it's 12:45
25 a possible field used to infer incognito. It is used 12:45

1 in the case of inferring incognito when it comes to 12:45
2 the maybeChromeincognito bit. That's all I'm saying. 12:46
3 BY MR. MAO: 12:46
4 Q. Right. 12:46
5 So have you asked for a list of all data 12:46
6 fields in which Google uses in order to infer 12:46
7 incognito traffic? 12:46
8 MR. ANSORGE: Objection. Asked and 12:46
9 answered. 12:46
10 THE WITNESS: I have not because my opinion 12:46
11 after reviewing this hundreds of documents is that the 12:46
12 field that could be uses to infer incognito browser 12:46
13 state mode is the absence of X-Client-Data header, as 12:46
14 I described in my report and also as Mr. Hochman 12:46
15 described in his report. Meaning both experts here 12:46
16 agree on this topic, meaning Mr. Hochman as well says, 12:46
17 when he discusses the maybeChromeincognito bit, that 12:46
18 is set in the absence of the X-Client-Data header, 12:47
19 so... 12:47
20 BY MR. MAO:
21 Q. So have you asked for a list of all signals 12:47
22 upon which Google would use to infer incognito usage? 12:47
23 MR. ANSORGE: Objection. Form. And asked 12:47
24 and answered. 12:47
25 THE WITNESS: I have -- let me first clarify 12:47

1 that. I don't know what you mean by a signal. You 12:47
2 know, different words have different -- they can have 12:47
3 meaning on their own. 12:47
4 But regardless, I have not asked Google to 12:47
5 provide me with a list of fields, as I said. I have 12:48
6 not. They might be used to infer incognito browser. 12:48
7 Because, again, as I said... 12:48
8 BY MR. MAO:
9 Q. As you said, sir? 12:48
10 A. Yeah. As I said from the -- or you can 12:48
11 actually read my -- I'm going to just repeat myself. 12:48
12 You could just read -- I don't mind repeating it 12:48
13 frankly because I'm going to say the exact same thing. 12:48
14 The absence of the X-Client-Data header is 12:48
15 what Google uses to set or not set the so-called 12:48
16 maybeChromeincognito bit, as stated in both 12:48
17 Mr. Hochman's report and my report. And after 12:48
18 reviewing all the documents, any presence of this 12:48
19 knowledge, I did not believe that there is a need to 12:48
20 ask Google for any other lists about this. 12:49
21 Q. And it is your opinion that Google does not 12:49
22 use any other data fields to infer incognito usage? 12:49
23 Is that correct? 12:49
24 MR. ANSORGE: Objection. Mischaracterizes 12:49
25 prior testimony. 12:49

1	THE WITNESS: Can you repeat the question	12:49
2	one more time?	12:49
3	MR. MAO: Yeah.	12:49
4	Ms. Court Reporter, Katy, can you please	12:49
5	read that back? Thank you.	12:49
6	(Court reporter reads back.)	12:49
7	THE WITNESS: To the best of my knowledge,	12:50
8	yes.	12:50
9	BY MR. MAO:	12:50
10	Q. Okay. Now back to your opinion No. 1, okay,	12:50
11	which is that "users cannot be readily identified for	12:50
12	the data at issue."	12:50
13	Have you asked from Google for a full list	12:50
14	of all the ways in which Google uses to reidentify	12:50
15	users?	12:50
16	MR. ANSORGE: Objection. Vague. Compound.	12:50
17	Mischaracterizes Exhibit 1.	12:50
18	THE WITNESS: It would help a lot if we are	12:50
19	a bit more specific, Mr. Mao.	12:50
20	For example, as a first point, as a first	12:50
21	matter, we are talking about the data at issue in this	12:50
22	case; correct? So we are only interested in the	12:51
23	alleged identification from the data at issue, which	12:51
24	is when a user is in private browsing mode, it's not	12:51
25	logged into a Google account and it is visiting a	12:51

1 non-Google website, pretty much pasted -- copy pasted 12:51
2 from the complaint. 12:51

3 So if you want to restate the question that 12:51
4 it's a little bit more specific, it would be immensely 12:51
5 helpful. 12:51

6 BY MR. MAO:

7 Q. Sure. 12:51

8 But you previously testified that you didn't 12:51
9 ask for a full list of all the relevant data logs in 12:51
10 this case. 12:51

11 So how would you even know what data is 12:51
12 relevant and at issue in this case, sir? 12:51

13 MR. ANSORGE: Objection. Vague. 12:51
14 Mischaracterizes prior testimony. And -- 12:51

15 BY MR. MAO: 12:52

16 Q. This is you clarifying me; right? So I'm 12:52
17 asking you: 12:52

18 How did you come to that determination of 12:52
19 what was relevant and what was not? 12:52

20 A. The data at issue, Mr. Mao, are very clearly 12:52
21 described in the Complaint and in my report. And I 12:52
22 can go through them if you wish now. 12:52

23 Q. Right. 12:52

24 But you have specific sources; right? You 12:52
25 confine the analysis to certain sources. And I'm 12:52

1 asking you how did you make a determination sources -- 12:52
2 of the sources, that those were the relevant sources? 12:52
3 That's my question. 12:52
4 That was what we were arguing about, are we 12:52
5 not? That's what I'm trying to understand, Professor. 12:52
6 MR. ANSORGE: Objection. Form. Vague, and 12:52
7 compound. 12:52
8 THE WITNESS: I ask for the documentation 12:52
9 related to topics that they are described in the 12:53
10 Complaint and in Mr. Hochman's report because recall, 12:53
11 this is a rebuttal to Mr. Hochman's report. And I 12:53
12 received documentation. And then I may ask for more 12:53
13 documentation about these topics, and I receive more 12:53
14 documentation. 12:53
15 At some point I determine that I have 12:53
16 received enough documentation. And together with all 12:53
17 the other sources that I have identified directly 12:53
18 myself, directly myself meaning they are public 12:53
19 documents, allow me to reach an opinion, and I can 12:53
20 stand hundred percent behind it based on what I have 12:53
21 reviewed up to that point. 12:54
22 So that's how I go about it. 12:54
23 (Plaintiffs' Exhibit 6 was 12:54
24 marked for identification.) 12:54
25 ///

1 BY MR. MAO: 12:54

2 Q. Okay. Let me go into Exhibit -- this is 12:54

3 No. 6. It should be a document entitled "Incognito 12:54

4 Events Labeling." 12:54

5 A. Let me figure this out. Exhibit No. 6. Let 12:54

6 me refresh my -- 12:54

7 MR. ANSORGE: Is it named Exhibit No. 6, 12:54

8 Counsel? 12:54

9 MR. MAO: Oh. Sorry. I think I forgot to 12:54

10 add the stamp. Give me a sec. 12:54

11 Okay. Probably fixed it. 12:54

12 THE WITNESS: I opened it up. Give me a 12:55

13 second to download. 12:55

14 MR. MAO: Take your time, Professor. 12:55

15 Because I'm going to ask you if you were aware of this 12:55

16 other incognito signal. 12:55

17 THE WITNESS: Okay. So this is -- okay. 12:55

18 Yeah. I'm trying to figure out if I've seen 12:55

19 this before, and I don't think I have. It's not 12:56

20 listed on my report for sure. So let me just go 12:56

21 through it. 12:56

22 How many pages? 12:56

23 MR. MAO: Please. 12:56

24 BY MR. MAO: 12:56

25 Q. You know my next question is going to be -- 12:56

1	A. I don't know.	12:56
2	Q. Yes, you do.	12:56
3	A. So should I --	12:56
4	Q. Yeah. Read it.	12:56
5	A. I'm going to go through the whole thing.	12:56
6	Q. I've got time. You've got time.	12:56
7	A. Sounds good.	12:56
8	I have reached page I guess 7798.	12:56
9	Do you want me to continue reading	12:59
10	everything?	12:59
11	Q. Yeah. Please.	12:59
12	A. I'm searching the document, if you don't	12:59
13	mind for some stuff, so if you see me typing, that's	12:59
14	the only reason why.	12:59
15	And I will also, because I forgot to do so	01:00
16	download, the Exhibit 5. I was looking at it directly	01:00
17	so let me do that too.	01:00
18	Okay. I mean, I -- go for it. I don't want	01:04
19	to use, you know, too much -- I've got an idea about	01:04
20	this document. If you ask me a question so it's --	01:04
21	because now I know what's going on with the document.	01:04
22	So let me go to this section of the document, or maybe	01:04
23	I can answer it immediately. Go for it.	01:05
24	Q. Sure.	01:05
25	Professor Psounis, have you ever considered	01:05

1 this document before? It's not on your list. 01:05

2 A. It's not on my list, no. 01:05

3 Q. Do you have a different opinion now 01:05

4 regarding whether or not there are other incognito 01:05

5 signals other than the X-Client-Data header? 01:05

6 A. No. Because this document is not related to 01:05

7 the data at issue. Throughout the document, it's 01:05

8 talking about Zwieback cookies. It also mentions 01:05

9 GAIA. Other data at issue are for people, No. 1, 01:05

10 where they are signed out, so there's no GAIA. And 01:05

11 No. 2, they are not visiting a Google site and hence 01:05

12 they get a Biscotti. 01:05

13 Q. But if Zwieback signals are in the case, 01:05

14 then that is relevant to the case. 01:05

15 Wouldn't you agree? 01:05

16 MR. ANSORGE: Objection. Mischaracterizes 01:05

17 prior testimony. Calls for speculation. Calls for 01:05

18 legal conclusion. 01:05

19 BY MR. MAO: 01:05

20 Q. I would challenge you, sir, to look at the 01:06

21 log sources again because Zwieback is in the case. 01:06

22 A. To look at where? 01:06

23 Q. That's a good question for you, sir. You're 01:06

24 this the one that's supposed to know all the relevant 01:06

25 sources. 01:06

1	MR. ANSORGE: Objection. Argumentative.	01:06
2	THE WITNESS: Okay. Let me repeat again,	01:06
3	my -- what is your answer -- what is your question?	01:06
4	BY MR. MAO:	01:06
5	Q. My question is: If this is an incognito	01:06
6	signal for Zwiebacks, and Zwiebacks are in the case,	01:06
7	wouldn't you agree that this is a different signal	01:06
8	than the X-Client-Data header?	01:06
9	MR. ANSORGE: Objection. Mischaracterizes	01:06
10	Exhibit 6.	01:06
11	THE WITNESS: I'm going to break it into	01:06
12	pieces. Let's first go with the first piece. Because	01:06
13	I'm going to through my own report now, if you don't	01:06
14	mind.	01:06
15	So let me first repeat what I said about the	01:07
16	Zwieback cookie. This case is about users that they	01:07
17	are logged out and visit a non-Google website. In	01:08
18	this case, they will get a Biscotti ID.	01:08
19	I do include in my report why there are	01:08
20	places where I also refer to the Zwieback ID which is	01:08
21	specific to Google websites because I'm rebutting	01:08
22	Mr. Hochman's report, and he does refer to it a number	01:08
23	of times.	01:08
24	But the fact of the matter is that Exhibit 6	01:08
25	in this whole discussion is not about what happens	01:08

1 when you visit a non-Google website. It's about when 01:08
2 you visit a Google website. 01:08
3 BY MR. MAO:
4 Q. Let's clarify this very fundamental dispute 01:08
5 you and I seem to be having. 01:08
6 Are you saying that in your experience, your 01:08
7 expert opinion, is that you can't have a Zwieback 01:08
8 while a user is on a third party website? 01:09
9 A. No. I did not -- I'm going to -- I did not 01:09
10 say that because a user may first go into a non-Google 01:09
11 website and then go to a Google website, and then both 01:09
12 of those things are going to end up in their jar. 01:09
13 Q. Right. 01:09
14 So now let me ask you a question again: 01:09
15 Would a Zwieback with this signal, okay, would that be 01:09
16 a different signal than the X-Client-Data header for 01:09
17 the purposes of this case? At least in some 01:09
18 situations? 01:09
19 MR. ANSORGE: Objection. Vague and 01:09
20 ambiguous. Mischaracterizes Exhibit 6. 01:09
21 THE WITNESS: So there is proposal design 01:09
22 ideas discussed in Exhibit 6. 01:09
23 [REDACTED] 01:10
24 And is this the -- so why don't you tell me 01:10
25 which particular field header, whatever, you are 01:10

1 referring to as a signal here? 01:10

2 BY MR. MAO: 01:10

3 Q. My question to you, sir, because it's my 01:10

4 deposition, is actually how did you not know that 01:10

5 there was an additional signal? 01:10

6 A. Which of the -- 01:10

7 MR. ANSORGE: Objection. Argumentative. 01:10

8 Mischaracterizes Exhibit 6. And assuming facts not in 01:10

9 evidence, Mr. Mao. 01:10

10 THE WITNESS: So which -- 01:10

11 BY MR. MAO: 01:10

12 Q. Professor Psounis, can you answer the 01:10

13 question, please? 01:10

14 A. Which signal are you referring to? 01:10

15 Q. The one you just stated back to me. 01:10

16 A. Which one was that? I said a lot of things. 01:10

17 This is -- which signal, just to make 01:10

18 sure -- 01:10

19 Q. [REDACTED] 01:10

20 A. I'm sorry. Which one? 01:10

21 Q. [REDACTED] 01:11

22 A. Okay. So you are referring to this new 01:11

23 [REDACTED], which is -- oh, okay. 97. 01:11

24 So let me read a little bit about this 01:11

25 [REDACTED] to understand specifically what its 01:11

1 nature is. Then -- 01:11
2 Q. You and I agree -- you and I agree that you 01:11
3 don't actually know what the signal is; right? 01:11
4 MR. ANSORGE: Why don't you let him 01:11
5 answer -- finish answering your questions. And he was 01:11
6 in the middle of speaking. 01:11
7 THE WITNESS: If I read a little bit more 01:11
8 now targeted in the area of Exhibit 6 that talks 01:11
9 explicitly about the [REDACTED], I'll do a search and 01:11
10 it's going to be relatively fast, I will be able to 01:11
11 get back to you about this. 01:12
12 MR. MAO: Okay. Go ahead. Please do that. 01:12
13 THE WITNESS: It happens. It's fine. It's 01:12
14 not accessible but it's okay. It will just take a 01:12
15 little bit longer. Apologies for that. I'm trying to 01:12
16 search for the string and it's not working. So I'll 01:12
17 just do it the old-fashioned way. 01:12
18 Okay. So now that I read the corresponding 01:16
19 parts of exactly how the logic works, I can answer 01:16
20 your question hopefully. 01:16
21 BY MR. MAO: 01:16
22 Q. Yeah. 01:16
23 My question is: Did you know about this 01:16
24 signal before you came to the deposition here today? 01:16
25 MR. ANSORGE: Objection. Mischaracterizes 01:16

1 Exhibit 6 and assumes facts not in evidence. 01:16

2 THE WITNESS: I did not refer to this signal 01:17

3 in my report. 01:17

4 Whether I know or I don't know, I'm trying 01:17

5 to remember if I had discussions or if I was looking 01:17

6 at it in the past, and I wouldn't know for sure but 01:17

7 it's not in my report. 01:17

8 BY MR. MAO: 01:17

9 Q. And that you wouldn't know for sure because 01:17

10 you never asked for a list of all incognito signals. 01:17

11 Isn't that true? 01:17

12 A. No. I do not believe in the "because" part. 01:17

13 Q. Okay. Let's carry on with the torture. 01:17

14 I'll introduce you to another exhibit and 01:17

15 I'm going to ask you whether you know what this signal 01:17

16 is? 01:17

17 A. Sure. 01:17

18 (Plaintiffs' Exhibit 7 was 01:17

19 marked for identification.) 01:17

20 MR. ANSORGE: Objection. Argumentative. 01:17

21 BY MR. MAO:

22 Q. Exhibit No. 7. 01:17

23 A. Exhibit 7. Let me go through it. 01:18

24 I'm looking at it. 01:18

25 Q. Please, take your time. 01:18

1	A. I'm going to download it.	01:18
2	This is an email; correct? So I assume I'm	01:19
3	summarizing. Yes?	01:19
4	Q. Yes.	01:19
5	A. Okay. Perfect. So let me go through it.	01:19
6	It's a lot of conversation.	01:19
7	Do you want me to read the whole thing or --	01:20
8	Q. Yeah.	01:20
9	A. Is there a place in the conversation --	01:20
10	Q. Yeah. I'm going to ask you if you know what	01:20
11	this other incognito signal is.	01:20
12	A. Which one?	01:20
13	Q. The --	01:20
14	A. I don't know.	01:20
15	Q. Well, I mean, I think it's pretty	01:20
16	self-explanatory if you read it.	01:20
17	A. So what --	01:20
18	MR. ANSORGE: Objection. Vague, ambiguous,	01:20
19	and argumentative.	01:20
20	When you ask him questions and then he can	01:20
21	provide --	01:20
22	BY MR. MAO:	01:20
23	Q. GWS IDs and experiment IDs, do you know	01:20
24	whether or not those are used as incognito signals?	01:20
25	A. Which ID? I'm sorry?	01:20

1	Q. The document refers to -- refers to them as	01:20
2	GWS IDs and experiment IDs.	01:20
3	MR. ANSORGE: Mr. Mao, why don't you refer	01:20
4	him to the specific part of the document.	01:20
5	MR. MAO: No. I am referring to the	01:20
6	specific parts of the document. I'm telling him what	01:20
7	the term is. It's throughout the document, all seven	01:20
8	pages.	01:20
9	BY MR. MAO:	
10	Q. Please take your time.	
11	I'm going to ask you whether or not this is	01:20
12	another X-Client -- I'm sorry. Whether it's another	01:21
13	incognito signal that you're aware of before you came	01:21
14	in here today.	01:21
15	A. Okay. I can read the whole thing. I wasn't	01:21
16	trying to --	01:21
17	Q. No, no, no. It was me and counsel arguing.	01:21
18	A. Okay.	01:21
19	MR. ANSORGE: Yeah.	01:21
20	And, Mr. Mao, you stated earlier you're	01:21
21	considered about time so we're trying to maybe speed	01:21
22	things up by directing him to a specific passage. If	01:21
23	you're putting full documents before him, expecting	01:21
24	him to read the full aspect, obviously it's going to	01:21
25	take a long time.	01:21

1 MR. MAO: We're almost done at the point in 01:21
2 which he wants to take a break anyways for lunch. 01:21
3 1:30. So we've got nine minutes here on this. Plenty 01:21
4 of time. 01:21

5 THE WITNESS: So I read this document and 01:24
6 essentially they are describing an experiment. 01:24
7 Experiment IDs is a completely different base. I can 01:24
8 talk to you more about this. 01:24

9 As companies are running for short periods 01:24
10 of time specific experiments to improve their system, 01:24
11 my understanding by just -- again, I've never seen 01:25
12 this. I haven't done a careful analysis. But I can 01:25
13 tell you my understanding in this document is that 01:25
14 they are discussing about an experiment. I don't know 01:25
15 if experiment actually took place. 01:25

16 If it did, I don't know if you have evidence 01:25
17 to show me that indeed this experiment was actually 01:25
18 done. I don't know how long it lasted. I don't see 01:25
19 frankly why it's related to the case. 01:25

20 So they run an experiment that -- actually 01:25
21 may have run an experiment. And, again, if you have 01:25
22 evidence that it did run, great. 01:25

23 BY MR. MAO:

24 Q. Yeah. I have evidence. The first line, it 01:25
25 says "Currently, we don't send experiment IDs, thereby 01:25

1 exposing to Google that the user is using incognito." 01:25
2 My first question is: What is that 01:25
3 additional signal there, "experiment IDs"? 01:25
4 A. I'm sorry, but this is not -- okay. Wait. 01:25
5 But this is not proof that the experiment took place. 01:25
6 This sentence doesn't say that the experiment took 01:26
7 place. 01:26
8 This is an e-mail message between various 01:26
9 employees about the possibility to run an experiment, 01:26
10 and they are debating what experiment ID -- this is 01:26
11 what's called experiment ID. They're inferring to 01:26
12 experiment IDs in general, whenever they want to run 01:26
13 an experiment. And the GWS ID is the one that they 01:26
14 were discussing that may be the ID to use for this 01:26
15 particular experiment. 01:26
16 I'm not trying to, you know, judge anything 01:26
17 here. But I'm just explaining to you what this is 01:26
18 about. 01:26
19 So I don't know if this experiment took 01:26
20 place. I don't know if it did take place, how long it 01:26
21 lasted. I don't know what is the purpose of this 01:26
22 experiment. 01:26
23 What I do know is that there is a lot of 01:26
24 discussion in this document about all these people 01:26
25 really worrying about, you know -- not worrying -- 01:26

1 showing interest, if you wish, and for a good reason, 01:26
2 to not break things in the sense that there are 01:27
3 specific policies and rules that you cannot violate. 01:27
4 So I guess they would never get approval to 01:27
5 run the experiment if they were to violate these 01:27
6 policies. 01:27
7 And I can see the discussion, you know, that 01:27
8 they -- 01:27
9 But in any case, at the bottom line here is 01:27
10 I don't know if this experiment took place. If it 01:27
11 did, please let me know, if you know. 01:27
12 Q. Professor -- 01:27
13 A. Because I don't know for how long it lasted. 01:27
14 Q. Professor, do you know what the "experiment 01:27
15 IDs" are referring to here, first line? 01:27
16 A. Experiment IDs is in general, we are going 01:27
17 to run an experiment. We need to somehow indicate 01:27
18 that this is data related to experiment we are 01:27
19 running. It's a very general tab. 01:27
20 And GWS ID, which is the other term you told 01:27
21 me about, is the specific IDs that they have been 01:27
22 using in the past and they are considering to use them 01:27
23 for this experiment that they are referring to here. 01:27
24 Q. But do you know whether or not experiment 01:28
25 IDs are used for incognito mode? 01:28

1 A. During an experiment that may or may not 01:28
2 have taken place, how -- why is this -- 01:28
3 Q. It says "Currently." It doesn't show that 01:28
4 it's currently in place. It says "Currently," sir. 01:28
5 A. Yeah. "Currently, we do not send experiment 01:28
6 IDs." That's -- 01:28
7 Q. Thereby exposing to Google that the user is 01:28
8 in incognito. 01:28
9 That's not an additional signal? 01:28
10 MR. ANSORGE: Yeah. Objection. 01:28
11 Argumentative. Asked and answered. Mischaracterizes 01:28
12 Exhibit 7. 01:28
13 BY MR. MAO: 01:28
14 Q. Okay. Sir -- 01:28
15 A. Go for -- 01:28
16 Q. -- experiment IDs before you -- 01:28
17 THE COURT REPORTER: Hang on a second. I 01:28
18 didn't -- 01:28
19 THE WITNESS: I'm going to stop and I'm 01:28
20 going to only answer -- I want to help, so I don't 01:28
21 want to be -- so go for it. Go for your question. I'm 01:28
22 going to answer. 01:28
23 BY MR. MAO: 01:28
24 Q. Yeah. 01:28
25 Did you know about experiment IDs as a way 01:28

1 of exposing to Google that the user is in incognito 01:29
2 before you came into this deposition today? 01:29
3 A. I am aware of the fact that Google, like 01:29
4 pretty much all other software companies, run 01:29
5 experiments with their system. In order to run 01:29
6 experiments with their system, and in particular in 01:29
7 the case of Google, given the type of system they 01:29
8 have, they need to indicate somehow which parts of 01:29
9 their system are now being used to run an experiment. 01:29
10 This is what they mean here by "experiment IDs." 01:29
11 Q. Sir, you had no idea before you came into 01:29
12 this room today that they were also -- they were also 01:29
13 able to use this signal. 01:29
14 Isn't that correct? 01:29
15 MR. ANSORGE: Objection. Argumentative. 01:29
16 Mischaracterizes Exhibit 7. 01:29
17 MR. MAO: He's avoiding my question. 01:29
18 THE WITNESS: No. This is not correct. It 01:29
19 is actually wrong. Let me again explain to you what 01:29
20 is going on here. 01:29
21 The experiment IDs here is not referring to 01:29
22 a specific ID. It is referring to a group of 01:30
23 potential IDs that engineers may use during an 01:30
24 experiment for the purpose of the experiment. 01:30
25 And what this particular experiment is 01:30

1 about, as it is described in this message, is such 01:30
2 that if they were to send the particular experiment ID 01:30
3 that they are discussing about in the context of this 01:30
4 experiment, they worry that they may expose to Google 01:30
5 that the user is using incognito mode. 01:30

6 This is a discussion about, and they are 01:30
7 going on and on about how should we do this? How 01:30
8 should we set it up? 01:30

9 So my answer to you is -- yes. 01:30

10 My answer to you is -- my answer to you is I 01:30
11 don't know if this is relevant because I don't know if 01:31
12 this experiment took place, and I don't know for how 01:31
13 long it lasted. And I don't even know if they 01:31
14 actually end up using the GWS ID for this particular 01:31
15 experiment they are talking about. That's what I'm 01:31
16 saying. 01:31

17 BY MR. MAO:

18 Q. Do you know what these experiment IDs are? 01:31

19 MR. ANSORGE: Objection. Vague. 01:31

20 Mischaracterizes Exhibit 7. 01:31

21 BY MR. MAO: 01:31

22 Q. Like what IDs are they talking about here? 01:31

23 A. When someone uses the phrase "experiment 01:31
24 IDs," they are referring to IDs that engineers may use 01:31
25 to be able to execute the experiment in the context of 01:31

1 a large system that handles a lot of data. They are 01:31
2 not referring to specific ID by the word -- by the 01:31
3 words "experiment IDs." They say -- how should I put 01:31
4 this? 01:31

5 Q. Can you give me an example -- 01:31

6 MR. ANSORGE: Mr. Mao, please stop 01:31
7 interrupting the witness. Please. We've asked 01:32
8 politely repeatedly. But now we're at the point where 01:32
9 it's verging on harassment, sir. Please, let him 01:32
10 answer your questions. 01:32

11 BY MR. MAO: 01:32

12 Q. I'm literally just going to ask you what IDs 01:32
13 do you think this might be? Google IDs. Google IDs 01:32
14 that you actually know. 01:32

15 A. Okay. I'm going to try again to explain 01:32
16 this. Perhaps -- perhaps the lack of technical 01:32
17 expertise from your part is causing this particular 01:32
18 miscommunication. Let me try again. Maybe I'm doing 01:32
19 a bad job, so... 01:32

20 In the context of a software company, every 01:32
21 now and then they conduct experiments. When the 01:32
22 company handles data, they don't want to run the 01:32
23 experiments in the complete data flow, so they use 01:32
24 experiment IDs, meaning IDs for the purpose of this 01:32
25 experiment. 01:33

1	So all I'm saying is that the term	01:33
2	"experiment IDs" is not referring to specific ID.	01:33
3	That's all I am saying.	01:33
4	Is this clear now, I hope?	01:33
5	Whereas the GWS ID is a specific --	01:33
6	Q. So what is -- what is a GWS ID, sir?	01:33
7	A. I do not remember off the top of my head	01:33
8	what a GWS ID is. I read something about it in this	01:33
9	e-mail exchange, but I don't remember exactly what it	01:33
10	is.	01:33
11	Q. I'm going to give you a hint. GWS ID is	01:33
12	absolutely quintessential to this case.	01:33
13	Do you know what GWS ID is?	01:33
14	You don't know? Not off the top of your	01:33
15	head?	01:33
16	MR. ANSORGE: Objection. Argumentative.	01:33
17	And it's not a memory test, Mr. Mao. I mean, if you	01:34
18	have specific documents --	01:34
19	MR. MAO: It is when he's your expert.	01:34
20	MR. ANSORGE: No, no. It's not what the	01:34
21	complicated --	01:34
22	MR. MAO: Yes, it is.	01:34
23	MR. ANSORGE: And we are at way past when	01:34
24	you promised us a lunch break as well. So at some	01:34
25	point I think we're going to have a little bit of a	01:34

1 break, aren't we? 01:34

2 MR. MAO: We will. And if you talk to him 01:34

3 to try to coach him during the break, I will 01:34

4 absolutely get that out. 01:34

5 BY MR. MAO:

6 Q. So what is a GW ID, sir? GWS ID? 01:34

7 A. I don't remember off the top of my head. 01:34

8 Give me a second to go -- if you are -- why don't you 01:34

9 share -- why don't you share some additional documents 01:34

10 with me. Maybe a document that defines the GWS ID. 01:34

11 Maybe you could share Mr. Hochman's report that you 01:34

12 may be referring to the GWS ID. May or may not. I 01:34

13 don't know. I'm not accessing anything other than the 01:34

14 exhibits. 01:34

15 I did inspect my own report and I searched 01:34

16 for the string GWS and it's not showing up. 01:34

17 So it -- it is not a memory test. It's a 01:35

18 very, very large number of documents and there are 01:35

19 actually a lot of IDs and a lot of settings and 01:35

20 scenarios. So just, you know, if -- any data you show 01:35

21 me, I will be happy to -- any exhibits you provide to 01:35

22 me, I will be happy to go through them to recall what 01:35

23 a GWS ID is. 01:35

24 I already told you what is experimental IDs. 01:35

25 So we can do this before or after lunch. If 01:35

1 you think it's going to take a long time, let's do it 01:35
2 after lunch. But, you know, I -- 01:35
3 Q. How much time have you spent preparing for 01:35
4 this case -- or working on this case? Sorry. How 01:35
5 much time have you spent working on this case? Strike 01:35
6 my prior question. 01:35
7 A. Let me think. About 200 hours. 01:35
8 Q. How many documents do you think you went 01:36
9 through? 01:36
10 A. Hundred. Provided by, you know, Google and 01:36
11 others, plus a lot of other documents I have looked 01:36
12 myself in public space. 01:36
13 Q. Sitting here today, right now, without 01:36
14 further assistance, you don't know what experiment IDs 01:36
15 and you don't know what GWS IDs they are referring to, 01:36
16 GWS IDs? 01:36
17 A. First, I already told you what experiment 01:36
18 IDs are. 01:36
19 Second, I said -- I did not say I do not 01:36
20 know what GWS ID is. I said I do not recall exactly 01:36
21 what GWS ID is, and I asked you to give me a document 01:37
22 that says what GWS ID is. 01:37
23 I double-checked those on my report and I 01:37
24 couldn't find mentioning the GWS ID in there. 01:37
25 You could also search Mr. Hochman's report 01:37

1 and I can also check if he's referring. But I'm not 01:37
2 saying he's not. And maybe this is going to help me, 01:37
3 meaning just -- yeah. So that's exactly what -- where 01:37
4 we are right now. 01:37

5 MR. MAO: Thank you, Professor. We will 01:37
6 take our break. 01:37

7 THE WITNESS: Sounds good. 01:37

8 THE VIDEOGRAPHER: Going off the record. 01:37

9 The time is 1:37 p.m. 01:37

10 (Lunch break taken.) 01:37

11 THE VIDEOGRAPHER: Back on the record. The 02:20
12 time is 2:20 p.m. 02:20

13 BY MR. MAO: 02:20

14 Q. Professor, if you don't mind pulling up 02:20
15 Exhibit No. 1, which is -- should be your -- should be 02:20
16 your report. 02:20

17 A. I'm there. 02:20

18 Q. Okay. I'm moving on to opinion No. 2. 02:20

19 Hold on a sec here. This is what happens 02:20
20 when you have both, like you said, paper documents and 02:20
21 electronic documents. 02:21

22 You see your opinion No. 2 there. If you 02:21
23 have a chance to kind of like pull this up. 02:21

24 The industry guidelines on private browsing, 02:21
25 am I right that you are referring to the 02:21

1 W3C Technical Architecture Group observations in that 02:21
2 document? 02:21
3 A. I'm referring to all W3C indeed, and the 02:21
4 Technical Architecture Group. Exact wording, I can 02:21
5 cite, if it's important on my report. 02:21
6 Q. Got it. 02:21
7 I introduced Exhibit No. 8. 02:21
8 Can you take a look and tell me if those are 02:21
9 the -- if those are the standards in which you were 02:21
10 referring to? 02:21
11 (Plaintiffs' Exhibit 8 was 02:21
12 marked for identification.) 02:21
13 THE WITNESS: I'm downloading it. That's 02:22
14 why it takes a little bit longer. 02:22
15 BY MR. MAO:
16 Q. No worries. 02:22
17 A. Let me scan through the document to make 02:22
18 sure it's the same one or I could just look at the way 02:22
19 I have cited it. Either way is fine. Just give me a 02:23
20 few minutes. 02:23
21 This is definitely a document from W3C tag 02:24
22 on private browsing modes. Sure. 02:24
23 Is it the one I have cited? Give me another 02:24
24 second -- 02:24
25 Q. Mm-hm. 02:24

1 A. -- to see the specific citation I have. 02:24
2 Yes. Private browsing mode. I believe this 02:24
3 is the one. I believe this is the one. I will have 02:25
4 to click, and I am not allowed to, correct, to 02:25
5 double-click? 02:25
6 Q. No. You can -- you can click it, just to 02:25
7 make sure. 02:25
8 MR. ANSORGE: Click what, Counsel? 02:25
9 MR. MAO: Oh, no. I thought that's what he 02:25
10 said. 02:25
11 THE WITNESS: Click the URL I have in 02:25
12 citation 61 in my report. It says July 5, 2019, which 02:25
13 is the same date. Maybe I'm overdoing it here. 02:25
14 Right. So it's fine. We can move on. July 5. We 02:25
15 can move on. 02:25
16 I will assume it's the one I'm citing. I 02:25
17 was referring to clicking on the URL. But there is no 02:25
18 need. It's fine. 02:25
19 BY MR. MAO: 02:25
20 Q. Got it. Okay. 02:25
21 So looking at this -- give me a sec here. I 02:25
22 think I have a technical difficulty. I'm sorry. Give 02:26
23 me a sec. 02:26
24 Can you go to page 3 of this document on the 02:26
25 .pdf? 02:26

1	You see there it says "The use of private	02:26
2	browsing mode should not be detectable by websites."	02:26
3	Do you see that? And.	02:26
4	And you cited this -- sorry. And you cited	02:26
5	this in paragraph 72 of your report.	02:27
6	Do you see that?	02:27
7	A. I do.	02:27
8	Q. Do you believe that websites here include	02:27
9	Google?	02:27
10	MR. ANSORGE: Objection. Vague.	02:27
11	THE WITNESS: Which particular websites are	02:27
12	you referring to that they may be Google websites?	02:27
13	You don't have to tell me all but just to --	02:27
14	BY MR. MAO:	02:27
15	Q. No. I'm saying section 3 of this document	02:27
16	says "The use of private browsing modes should not be	02:27
17	detectable by websites."	02:27
18	And you cited to this in your report at	02:27
19	paragraph 72.	02:27
20	We don't disagree about what the document	02:27
21	says the fact that you cited it; right?	02:27
22	A. I do not disagree.	02:27
23	Q. Right.	02:27
24	So what I'm saying is "detectable by	02:27
25	websites," do you believe that websites includes	02:27

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1	Google?	02:27
2	MR. ANSORGE: Objection. Vague.	02:27
3	THE WITNESS: I can rephrase your question	02:27
4	or I could ask to be more specific about what you mean	02:28
5	by Google. Google is a big company. It has a lot of	02:28
6	different websites that belong to Google.	02:28
7	BY MR. MAO:	02:28
8	Q. Okay. Would you believe that the use of	02:28
9	private browsing mode and the fact they should not be	02:28
10	detectable by Google would be consistent with	02:28
11	deception?	02:28
12	MR. ANSORGE: Objection. Vague and form.	02:28
13	THE WITNESS: I believe that as I cite and	02:28
14	as the observation say, it should not be detectable by	02:28
15	the website; that a user is accessing the website that	02:28
16	is at the top of the browser and the user is	02:28
17	accessing, it should not be detectable by that website	02:28
18	whether the user is or is not in private browsing mode	02:28
19	that would include all websites.	02:29
20	BY MR. MAO:	02:29
21	Q. And all websites would include Google.	02:29
22	Is that correct?	02:29
23	A. You mean WWW dot Google dot com, for	02:29
24	example? You see what I mean? I'm just trying to	02:29
25	figure out --	02:29

1	Q. Sure. Or WWW dot double click dot com.	02:29
2	A. That's -- you see that's why I'm asking.	02:29
3	That's what I'm trying to figure out.	02:29
4	Q. Yeah.	02:29
5	A. Any website that is offering something of	02:29
6	interest -- I mean, I don't want overcomplicate this.	02:29
7	But let me say this:	02:29
8	Yes, I think that it should include all	02:29
9	websites. And let me -- just to put some meat into	02:29
10	it, the point of this -- and I believe the Exhibit 8	02:29
11	also says this -- is that there is a fear that if	02:29
12	someone cites new that somebody in the private	02:30
13	browsing mode, they may degrade the service level.	02:30
14	Because, for example, let's say I'm looking	02:30
15	at New York Times, you know, all these websites have	02:30
16	revenue throughout, so if they knew that I am in	02:30
17	private browsing mode, given the particular	02:30
18	characteristics of the private browsing mode, they may	02:30
19	choose not to serve me. Who knows?	02:30
20	Because when I'm in private browsing mode,	02:30
21	the websites I am visiting do not find their way into	02:30
22	my profile, and hence the whole ecosystem that they	02:30
23	are relying, the publishers in, would be compromised.	02:30
24	That's why the W3C is saying this.	02:31
25	Q. Okay. Can you take a look at Exhibit 9?	02:31

1	Take your time to read that.	02:31
2	(Plaintiffs' Exhibit 9 was	02:31
3	marked for identification.)	02:31
4	THE WITNESS: I read the -- this three-page	02:34
5	document.	02:34
6	BY MR. MAO:	
7	Q. Okay. If you look at your opinion at	02:34
8	paragraph 63, you say that "Analytics user IDs are not	02:34
9	used to join sign-in user data."	02:34
10	Do you see that?	02:34
11	A. Let me read that paragraph. I remember	02:34
12	something to that effect but let me read it.	02:35
13	Q. Please.	02:35
14	A. I don't see in this paragraph what you said.	02:35
15	I, however, read statements to that effect earlier. I	02:35
16	can go through my section, if you would like.	02:35
17	Q. Well, my question to you is: Do you agree	02:35
18	that GA user IDs are linked with Biscotti IDs in	02:35
19	certain user logs looking at Exhibit 9?	02:36
20	MR. ANSORGE: Objection. Vague.	02:36
21	Mischaracterizes Exhibit No. 9. Assumes facts not in	02:36
22	evidence.	02:36
23	THE WITNESS: If that was ever to happen,	02:36
24	the Biscotti IDs would be encrypted. So that wouldn't	02:36
25	be a problem when it comes to whether a user can be	02:36

1 identified from the data at issue because a user 02:36
2 wouldn't be able to be identified by the data at 02:36
3 issue. 02:36
4 BY MR. MAO: 02:36
5 Q. But you agree with me that encryption can be 02:36
6 decrypted by the same encrypting party, so long as 02:36
7 they keep a key. 02:36
8 Isn't that correct? 02:36
9 MR. ANSORGE: Objection. Incomplete 02:36
10 hypothetical. Vague. Calls for speculation. 02:36
11 THE WITNESS: I would prefer to keep this 02:37
12 specific, more specific to the case. So let me answer 02:37
13 as follows: 02:37
14 Google has designed a system back in 2016 02:37
15 called █ precisely to make it very, very hard for a 02:37
16 bad actor -- and by bad actor, I mean a person that 02:37
17 could violate Google's policies, acting -- I don't 02:38
18 know -- criminally, I don't know. I'm not an 02:38
19 attorney -- for a bad actor, or even for somebody by 02:38
20 mistake, to do what you said. 02:38
21 Because the only building block in this 02:38
22 bigger Google system that could do this decryption is 02:38
23 this █. And I can talk a lot about this. I 02:38
24 have a lot of information in my report. But it's █ 02:38
25 █ 02:38

1 [REDACTED] 02:38
2 BY MR. MAO:
3 Q. Okay. But the [REDACTED] can decrypt what 02:38
4 Google encrypts. 02:38
5 Isn't that correct? 02:38
6 MR. ANSORGE: Objection. Vague. Incomplete 02:38
7 hypothetical. 02:38
8 THE WITNESS: Maybe this is going to help. 02:39
9 Let me see. So the -- I'm looking at my report now. 02:39
10 Just one sec. 02:39
11 So the [REDACTED] has the keys and can 02:39
12 decrypt in accordance to the rules and the policies 02:39
13 that it is running. It's a piece of software. But, 02:39
14 yes, it could decrypt. 02:39
15 BY MR. MAO: 02:39
16 Q. Okay. Let me introduce Exhibit 10, which 02:39
17 will help a little bit. I presume you've seen this 02:40
18 document which is a part of the [REDACTED] documentation. 02:40
19 It's Exhibit No. 10, if you don't mind. 02:40
20 (Plaintiffs' Exhibit 10 was 02:40
21 marked for identification.) 02:40
22 THE WITNESS: Let me -- the Bates -- I've 02:40
23 seen a lot of [REDACTED] documents for the record. 0774 02:40
24 double check. It's listed. 02:40
25 I do not think -- okay. I'm downloading it 02:40

1 and putting it in. 02:41

2 BY MR. MAO:

3 Q. Why don't we let it download first then. 02:41

4 Let me go back to Exhibit No. 9 real fast. 02:41

5 Let me just ask you a quick question regarding No. 9. 02:41

6 Do you know whether or not for the logs that 02:41

7 contain the GA user ID and join beacons -- do you see 02:41

8 that there in pages 1 and 2 on 9? 02:41

9 A. Just one second. Downloading 9 as well if 02:41

10 you're going to have follow-up. 02:41

11 Okay. So I am at Exhibit 9. 02:41

12 Go ahead, please. What's your question? 02:41

13 Q. My question is do you know whether or not 02:41

14 the Biscotti in the logs referred to are actually 02:41

15 encrypted? 02:41

16 A. Which particular logs are you referring to? 02:42

17 Q. The join beacon logs. It's the bottom of 02:42

18 page 1, going onto page 2. 02:42

19 A. So I'm going to answer as follows because 02:42

20 there are so many different log names, as I've said 02:42

21 already, that it's extremely hard to say whether in 02:42

22 the -- you know, 02:42

23 [REDACTED] 02:42

24 [REDACTED] log what is or is not going on. 02:42

25 But let me answer as follows, and maybe I 02:42

1 can help explaining by pointing out to pictures in 02:42
2 my -- 02:42
3 Q. My question is actually fairly simple and 02:42
4 straightforward, Professor. I'm trying to finish. 02:42
5 I'm just asking you whether or not you know 02:42
6 the Biscotti IDs in these logs are encrypted or not? 02:42
7 Unless your report has a specific explanation in 02:43
8 response to my question, which I can assure you it 02:43
9 does not, I'm asking you a pretty simple question, I 02:43
10 think. 02:43
11 MR. ANSORGE: Objection. Argumentative. 02:43
12 THE WITNESS: My report has explanation -- 02:43
13 has an explanation to the following effect, and I can 02:43
14 go through this, if you want. Let me just go to the 02:43
15 report at exactly where it says. 02:43
16 BY MR. MAO:
17 Q. But in response to my question? 02:43
18 A. Yes. 02:43
19 Q. I just want to make sure. 02:43
20 Okay. Let's do that. 02:43
21 Where? Which? 02:43
22 A. Give me a second to go on my report, and go 02:43
23 through the corresponding paragraph. 02:43
24 Okay. So now your question on Exhibit 9 you 02:45
25 said? 02:45

1	Q. Mm-hm.	02:45
2	A. Would be whether logs that contain the GA --	02:45
3	GAIA and a Biscotti ID, whether in that log the	02:45
4	Biscotti ID is or is not encrypted; correct?	02:45
5	Q. Yeah.	02:45
6	Sorry. Which paragraph are you referring to	02:45
7	in your report?	02:45
8	A. No. I'm not -- I went through my report and	02:45
9	now I'm asking you to repeat your question.	02:45
10	Q. Yeah. I was trying to move on and simply	02:46
11	finish with Exhibit No. 9.	02:46
12	A. Mm-hm.	02:46
13	Q. Right?	02:46
14	Which is simply asking you do you know	02:46
15	whether or not these join beacon logs contain	02:46
16	encrypted or un-encrypted Biscottis?	02:46
17	A. Which join beacon logs are you referring to?	02:46
18	Q. Any of those [REDACTED].	02:46
19	A. Let me see which [REDACTED] you are talking	02:46
20	about.	02:46
21	Any of these [REDACTED], meaning which [REDACTED]?	02:46
22	Q. Should be [REDACTED], [REDACTED],	02:46
23	and [REDACTED].	02:46
24	A. So these are logs, but I was referring to	02:46
25	the join beacons. Because the bold phrase says	02:46

1 "What logs contain both the GAIA user ID," meaning the 02:47
2 GAIA, "and join beacons?" 02:47
3 Q. Wait, what? Say it again? What did you 02:47
4 just say? 02:47
5 A. I'm reading Exhibit 9. It says "What logs 02:47
6 contain" -- okay. 02:47
7 You are asking me whether on the three 02:47
8 particular logs that you asked and that you mentioned 02:47
9 at the beginning of page 2, whether in these three 02:47
10 logs the GAIA ID and the Biscotti ID -- whether the 02:47
11 Biscotti ID is encrypted. 02:47
12 Is this what you're asking me? 02:47
13 Q. Yeah. You're saying for the join beacon 02:47
14 logs at the end of page 1 to the beginning of page 2 02:47
15 has GAIA IDs or Biscotti IDs in them? 02:47
16 A. No. I'm asking -- okay. Why don't you ask 02:47
17 your question again? 02:47
18 Q. Okay. Which logs -- which of those [REDACTED] 02:47
19 logs contain encrypted GAIA IDs? 02:47
20 A. I never said anything about -- 02:48
21 MR. ANSORGE: Objection. Mischaracterizes 02:48
22 Exhibit 9. 02:48
23 THE WITNESS: I never said -- 02:48
24 MR. ANSORGE: Assumes facts not in evidence. 02:48
25 MR. MAO: I'm looking at a live transcript 02:48

1	and you did say GAIA IDs.	02:48
2	THE WITNESS: Yeah. But I didn't say	02:48
3	encrypted GAIA IDs.	02:48
4	BY MR. MAO:	02:48
5	Q. Oh, okay.	02:48
6	So which ones are -- which ones are	02:48
7	encrypted or un-encrypted GAIA IDs for page 1 and --	02:48
8	for these three logs?	02:48
9	MR. ANSORGE: Same objection.	02:48
10	Mischaracterizes Exhibit 9. Assumes facts not in	02:48
11	evidence.	02:48
12	BY MR. MAO:	02:48
13	Q. Please, sir, go ahead.	02:48
14	A. Let me follow up as follows: If you read	02:48
15	this document, even though I haven't read it before,	02:48
16	it says:	02:48
17	"As a result, for the logs identified	02:48
18	below, the GA user ID or Biscotti IDs may	02:48
19	not actually be present for a given	02:48
20	customer. Furthermore, Biscotti ID is	02:48
21	encrypted before it comes to	02:48
22	Google Analytics, and Google Analytics	02:48
23	cannot decrypt it."	02:48
24	So this is the essence of what we should be	02:49
25	discussing here. And that's also on my report.	02:49

1 BY MR. MAO: 02:49

2 Q. Okay. We're talking about what logs contain 02:49

3 both the GA user ID and join beacons; right? At the 02:49

4 end of page 1, that's the section we're looking at? 02:49

5 A. Right. Right. 02:49

6 Q. So the GAIA IDs there and the join beacons, 02:49

7 you're saying what -- which of them is encrypted? 02:49

8 A. No -- 02:49

9 MR. ANSORGE: Objection. Mischaracterizes 02:49

10 Exhibit 9. Assumes facts not in evidence. Incomplete 02:49

11 hypothetical. 02:49

12 BY MR. MAO: 02:49

13 Q. Which ones are encrypted? 02:49

14 A. I am -- Biscotti IDs are encrypted before 02:49

15 they go to Google Analytics and Google Analytics 02:49

16 cannot decrypt it. 02:49

17 Biscotti IDs are also encrypted whenever 02:49

18 they are the same logs with a GAIA or the 02:49

19 GA user ID. And this is stated not just in my report. 02:49

20 It's also stated in this document. 02:50

21 Q. I see. 02:50

22 So in this section, which logs contain 02:50

23 encrypted GAIA IDs? 02:50

24 MR. ANSORGE: Objection. Mischaracterizes 02:50

25 Exhibit 9. Assumes facts not in evidence. Asks the 02:50

1 witness to speculate. 02:50

2 THE WITNESS: I'm not discussing about 02:50

3 encrypted GAIA IDs at all. When it comes to 02:50

4 encryption, I'm pointing out the fact if you look at 02:50

5 the last sentence of the second paragraph in the first 02:50

6 page, it says: 02:50

7 "Furthermore, Biscotti ID is 02:50

8 encrypted before it comes to 02:50

9 Google Analytics and Google Analytics 02:50

10 cannot decrypt it." 02:50

11 This is a general statement for the whole 02:50

12 document. It applies -- the whole document enhance 02:50

13 all the logs, and that's basically what I'm saying. 02:51

14 I'm saying that the Biscotti ID is encrypted. 02:51

15 Q. Okay. So which logs here contain encrypted 02:51

16 or un-encrypted GAIA IDs? 02:51

17 MR. ANSORGE: Yeah. Objection 02:51

18 mischaracterizes Exhibit 9. Assumes facts not in 02:51

19 evidence. 02:51

20 MR. MAO: I'm going to -- 02:51

21 MR. ANSORGE: Calls for speculation. 02:51

22 MR. MAO: I'm going to warn you to stop 02:51

23 trying to coach the witness, Joey. 02:51

24 MR. ANSORGE: I'm making a record, Mr. Mao. 02:51

25 If you want to try to exploit a semantic clash, you -- 02:51

1	MR. MAO: Move to strike, Counsel.	02:51
2	MR. ANSORGE: I don't think it's going to	02:51
3	be --	02:51
4	MR. MAO: I'm warning you one more time,	02:51
5	Joey.	02:51
6	BY MR. MAO:	02:51
7	Q. Go ahead. Please answer the question.	02:51
8	A. Can you repeat this question, please?	02:52
9	Q. Yes.	02:52
10	Which of these [REDACTED] logs here contain	02:52
11	encrypted GAIA IDs?	02:52
12	MR. ANSORGE: Same objection.	02:52
13	THE WITNESS: I haven't looked at these	02:52
14	particular logs. I don't recognize them by name.	02:52
15	However, I can say the following that as you can see	02:52
16	also in my report in multiple places -- let me just	02:52
17	find one, for example.	02:52
18	Here the key is -- I assume that you're --	02:52
19	actually, I don't want to assume anything about your	02:53
20	question.	02:53
21	Both GAIA and Biscotti arrive encrypted on	02:53
22	Google and only [REDACTED], tying it -- this discussion back	02:53
23	to what we were discussing -- can decrypt them and has	02:53
24	the particular rules and policies to decide. And it	02:53
25	is making sure that if ever a GAIA ID and a Biscotti	02:53

1 ID find their way on the same logs, the Biscotti ID 02:53
2 will be encrypted. 02:53

3 So this is the gist of what we are 02:54
4 discussing in addition to the fact that on top of 02:54
5 that, Google Analytics always gets Biscotti IDs 02:54
6 encrypted, as I already discussed. 02:54

7 So your question about -- so can you repeat 02:54
8 again the question? 02:54

9 BY MR. MAO:

10 Q. Yeah. I'm asking you these [REDACTED] logs, 02:54
11 right -- 02:54

12 A. Uh-huh. 02:54

13 Q. -- do they contain GAIA IDs and potentially 02:54
14 encrypted Biscotti IDs? 02:54

15 A. I -- 02:54

16 MR. ANSORGE: Same objection. 02:54

17 THE WITNESS: I wouldn't know because I 02:54
18 haven't looked into these particular [REDACTED] logs; 02:54
19 right? 02:54

20 So they do say -- this document says they 02:54
21 contain the GAIA ID and join beacons. That's what 02:54
22 this is entitled. 02:55

23 BY MR. MAO: 02:55

24 Q. Got it. 02:55

25 And what exactly is a join beacon? 02:55

1 A. Well, this is what I was asking to tell me 02:55
2 because I have not seen this document before, and I'm 02:55
3 sure that it is a document in relation to the 02:55
4 deposition of Stephen Chung, I believe. And hence it 02:55
5 is out of context for me, right, unless I go to the 02:55
6 deposition of Stephen Chung or you offer me more 02:55
7 documents to see what this document is referring to as 02:55
8 join beacons. 02:55

9 Q. Do you know what join beacons for 02:56
10 Google Analytics logs are? 02:56

11 I swear to you, Professor, this is something 02:56
12 in which you really should know. And I'm not trying 02:56
13 to trick you on this one. 02:56

14 MR. ANSORGE: Objection. Argumentative. 02:56

15 MR. MAO: There are numerous -- numerous 02:56
16 documents referring to this, and I am entitled to an 02:56
17 answer on this one. 02:56

18 And I will -- Counsel, if you try to 02:56
19 obstruct and coach him on this any more, I will seek 02:56
20 for Court sanctions on this one. I will run a search 02:56
21 to show you how often the term "join beacons" pops up 02:56
22 with Google Analytics logs and I'm absolutely entitled 02:56
23 to an answer from your expert. Just try Joey, please. 02:56

24 MR. ANSORGE: Mr. Mao, it's not a memory 02:56
25 test, as I stated before. 02:56

1	BY MR. MAO:	02:56
2	Q. So can you answer my question, sir?	02:56
3	MR. ANSORGE: If you have a specific thing,	02:56
4	why don't you show him a specific document.	02:56
5	MR. MAO: I am showing him a specific	02:56
6	document that refers to join beacons.	02:56
7	BY MR. MAO:	02:56
8	Q. Sir, do you know what join beacons for	02:56
9	Google Analytics logs are?	02:56
10	MR. ANSORGE: Objection. Argumentative.	02:57
11	THE WITNESS: I do not understand what you	02:57
12	mean by join beacons without giving me some context.	02:57
13	For example, in my report, I'm referring multiple	02:57
14	times to tracking beacons, referring to beacons.	02:57
15	There are other areas in documents that I've read that	02:57
16	they refer to beacons or tracking beacons or	02:57
17	join beacons.	02:57
18	Perhaps you can offer a document about	02:57
19	Google Analytics that talks about join beacons and	02:57
20	then I will know exactly what you are talking about.	02:57
21	BY MR. MAO:	
22	Q. Sitting here right now, you're not able to	02:57
23	tell me what join beacons for Google Analytics are.	02:57
24	Isn't that true?	02:57
25	MR. ANSORGE: Same objection.	02:57

1 THE WITNESS: No. I am not able to tell you 02:57
2 what in this context is a join beacon. I mean, I'm 02:58
3 telling you, I'm going through my report, I do mention 02:58
4 join beacons once as extracted from a document ending 02:58
5 at 1695. I will be more than happy to open up 02:58
6 document 1695, meaning just offer some context so that 02:58
7 I can be precise. 02:58

8 BY MR. MAO:

9 Q. But we don't dispute that you opined on 02:58
10 join beacons in your expert report. 02:58

11 Isn't that correct? 02:58

12 MR. ANSORGE: Objection. Vague and 02:58
13 ambiguous. Argumentative. And mischaracterizes prior 02:59
14 testimony. 02:59

15 THE WITNESS: I am opining I offer 13 02:59
16 opinions in my report. And last part of my report is 02:59
17 about the question of joining unidentified with 02:59
18 identified data. And I -- in particular I call it 02:59
19 data joinability. So I am opining about that in a lot 02:59
20 of places, and I will be happy to go through this with 02:59
21 you, more than happy. 02:59

22 But, again, the join beacons out of context 02:59
23 is not something that I feel comfortable making an 03:00
24 opinion at this point. 03:00

25 ///

1 BY MR. MAO: 03:00

2 Q. You do realize that according to your 03:00
3 report, you read the deposition of Chung. 03:00

4 Do you recall that? 03:00

5 A. Yes. But I've read like 10s and 10s and 10s 03:00
6 of depositions. And even Google engineers are using 03:00
7 many times different terms for different things, 03:00
8 depending on which groups they are working on. 03:00

9 So I don't see what is the problem with you 03:00
10 offering -- actually, I don't want to state that. 03:00

11 It's fine. 03:00

12 All I'm saying is if you give me more 03:00
13 context, I will be able to be more accurate and 03:00
14 perhaps more helpful. 03:00

15 Q. Have you ever looked for joining beacons in 03:00
16 the -- in the documents -- sorry. Strike that. 03:00

17 Have you ever looked for joining beacons in 03:00
18 the logs that you actually inspected? 03:01

19 A. I cannot answer this question because it is 03:01
20 using the term joining beacons, and we have been 03:01
21 discussing for five minutes about the fact that I 03:01
22 don't feel comfortable to interpret the term 03:01
23 join beacons in a certain way out of some context. 03:01

24 Q. So this brings me back to one of the 03:01
25 questions I wanted to ask very early on. 03:01

1	Who -- who -- actual names -- who helped you	03:01
2	run these tests that you were talking about?	03:01
3	You said that you had counsel help you run	03:01
4	tests.	03:01
5	Who are the people?	03:01
6	A. The name of the person --	03:01
7	MR. ANSORGE: Objection. Form.	03:01
8	THE WITNESS: So the name of the person that	03:01
9	helped me run the tests that I am referring to and I'm	03:02
10	including on my report, first name is Tracy. I don't	03:02
11	remember the last name. I can easily find it, if you	03:02
12	want.	03:02
13	BY MR. MAO:	03:02
14	Q. Anyone else?	03:02
15	A. No.	03:02
16	Q. And did this Tracy, did you refer to her in	03:02
17	your report?	03:02
18	A. I don't think so. I don't remember. I can	03:02
19	search for it.	03:02
20	Q. Do you disclose in your report that this	03:02
21	Tracy helped you run tests?	03:02
22	A. We had a discussion about the experiments or	03:02
23	the tests, if you wish, that they are included in my	03:02
24	report, other ID, and how they are executed, how they	03:03
25	took place. And during this discussion, I clarified	03:03

1 to you that I am overseeing it. The execution, I give 03:03
2 specific instructions, but I'm not running them 03:03
3 myself. In particular, not any, you know, machines or 03:03
4 service that might belong to my permanent employer, 03:03
5 USC. And for this reason, I ask counsel to run 03:03
6 specific tests for me. 03:03

7 So I think we have covered the topic 03:03
8 already. 03:03

9 Now you asked me the specific person that 03:03
10 had received instructions from me and run the test, 03:03
11 which is the reason why I'm giving you the name. 03:03

12 Q. And what are the qualifications of this 03:03
13 Tracy? 03:03

14 MR. ANSORGE: Objection. Vague. 03:04

15 THE WITNESS: Counsel direct me to this 03:04
16 person as the right person to run these tests. 03:04

17 BY MR. MAO: 03:04

18 Q. You can't remember the last name of the 03:04
19 person that helped you run tests after spending -- 03:04

20 MR. ANSORGE: Objection. 03:04

21 BY MR. MAO:

22 Q. -- 200 hours on this?

23 MR. ANSORGE: Objection. Argumentative. 03:04
24 And still not a memory test, Mr. Mao. 03:04

25 THE WITNESS: Usually when I work with 03:04

1 collaborators, I always refer to them their first 03:04
2 name. This is just my way of collaborating with 03:04
3 people. It could be Gao. But I find this immaterial, 03:04
4 if I'm allowed to say. 03:04

5 BY MR. MAO: 03:05

6 Q. Did you find her qualifications immaterial 03:05
7 as well and therefore you don't remember right now? 03:05

8 MR. ANSORGE: Yeah. Objection. 03:05

9 Argumentative. 03:05

10 THE WITNESS: Not at all. I do consider 03:05
11 extremely important that my collaborators have 03:05
12 appropriate qualifications and this has been -- the 03:05
13 assurance to this effect has been given to me by 03:05
14 Mr. Ansorge. 03:05

15 BY MR. MAO: 03:05

16 Q. So what are her qualifications, sir, sitting 03:05
17 here today, defending your opinion? 03:05

18 MR. ANSORGE: Objection. Asked and 03:05
19 answered. 03:05

20 THE WITNESS: I already answered. But, 03:05
21 again, I got an assurance that she has the right 03:05
22 qualifications. I don't have a list off the top of my 03:05
23 head now to tell you X 1, 2, 3, 4, 5, 6. 03:05

24 I did find her quite able to execute this 03:05
25 stuff. I was asking her. I can say that. 03:05

1	BY MR. MAO:	03:06
2	Q. Did you check whether or not she had	03:06
3	technical qualifications to run the tests that you	03:06
4	needed?	03:06
5	A. I inquired about it and I've been assured	03:06
6	that she has. I didn't ask her to show me her	03:06
7	diplomas to verify myself that they are genuine, sir,	03:06
8	so...	03:06
9	Q. And what are her technical qualifications,	03:06
10	as you sit here today?	03:06
11	MR. ANSORGE: Objection. Asked and	03:06
12	answered. Argumentative.	03:06
13	BY MR. MAO:	03:06
14	Q. What are they specifically?	03:06
15	A. I got assurance from Mr. Ansorge that she	03:06
16	has technical qualifications.	03:06
17	I don't want to say something that it's	03:06
18	inaccurate. I just don't like inaccurate answers. I	03:06
19	mean...	03:07
20	Q. Does she have more than a humanities degree?	03:07
21	A. For sure, yes.	03:07
22	Q. Okay. Does she have a technical degree?	03:07
23	A. As far as I recall, yes.	03:07
24	Q. What kind of technical degree?	03:07
25	A. I'm going to speculate -- not speculate.	03:07

1 I'm going to try to remember to the best of my 03:07
2 recollection. I think it's a computer science 03:07
3 Master's degree. But I'm not sure. I mean -- 03:07
4 MR. ANSORGE: Objection. Asked and 03:07
5 answered. 03:07
6 And at this point I'd also like to caution 03:07
7 the witness to not reveal privileged communications 03:07
8 and to not speculate about the qualifications of 03:07
9 anybody. 03:07
10 MR. MAO: Mr. Ansorge, you are on extremely 03:07
11 thin ice. You know I like you -- 03:07
12 MR. ANSORGE: You asked the same question 03:07
13 four times over, Mr. Mao. You're badgering the 03:07
14 witness with the same question four times over. And 03:07
15 he's nice, he's polite, and he's providing different 03:07
16 responses each time, and he's searching for answers to 03:08
17 your question. But if you were to actually look at 03:08
18 the transcript, you've asked him repeatedly the exact 03:08
19 same question. 03:08
20 BY MR. MAO: 03:08
21 Q. How did you supervise Tracy's tests in this 03:08
22 case? 03:08
23 A. I have already answered this. Not the last 03:08
24 five minutes, but about a couple of hours ago when we 03:08
25 discussed about the way -- by ways I have run the test 03:08

1 I have -- I am reporting in my report. I can repeat 03:08
2 this or I can -- I don't mind. I can repeat this, or 03:08
3 you can look back at the transcript. 03:08
4 Q. Did you produce all of the tests? 03:08
5 A. I'm not sure what you mean by that. 03:08
6 Q. What did you and Tracy test? 03:08
7 A. I am referring to the tests that I include 03:08
8 in my report. You can see in my report there are some 03:09
9 tests and some numbers. 03:09
10 Q. Which parts of the -- which parts of your 03:09
11 report and tests were done by Tracy? 03:09
12 MR. ANSORGE: Objection. Mischaracterizes 03:09
13 testimony. 03:09
14 THE WITNESS: There are no parts or tests of 03:09
15 my report that they were done by Tracy. There are 03:09
16 some tests, data tests, data experiments, for which I 03:09
17 have oversaw and dictated and described in detail to 03:09
18 be executed. And Tracy, Ms. Gao -- I don't know if I 03:09
19 have the right last name. It's more polite, I would 03:09
20 say, to use Ms. Gao in this official context, if this 03:10
21 is the right last name -- was the person from counsel 03:10
22 that executed my instructions. 03:10
23 Now, that I corrected the characterization 03:10
24 of whether somebody else has executed anything or 03:10
25 produced anything in my report, which is not the case, 03:10

1 I will tell you which parts of my report have numbers 03:10
2 based on data. 03:10
3 So there are two types -- 03:10
4 BY MR. MAO:
5 Q. No. No, no, sir. You need to be able to 03:10
6 tell me, okay, which parts of your report, okay, were 03:10
7 done or assisted by Tracy. Let's start there so that 03:10
8 we don't get into an argument. 03:10
9 MR. MAO: And, Joey, if you so much as try 03:10
10 to tamper with this, we're going to the Court. 03:11
11 MR. ANSORGE: Objection. Same objection. 03:11
12 Argumentative. 03:11
13 MR. MAO: Go ahead. 03:11
14 BY MR. MAO: 03:11
15 Q. Go ahead, Professor. 03:11
16 A. Yes. So let's just do this and move on. 03:11
17 Okay. So let's go down. I'm scrolling. 03:11
18 In an effort to give you a list, can I use a 03:12
19 Post-it™ to put notes or should I remember in the 03:12
20 process which parts are -- 03:12
21 Q. Well, technically you were supposed to 03:12
22 disclose that as part of the report, but since you 03:12
23 didn't do that, you know, like I don't know what you 03:12
24 need right now in order to demarcate this. But I 03:12
25 would like some type of demarcation as to which parts 03:12

1 were assisted by Ms. Gao. 03:12

2 MR. ANSORGE: Objection. Argumentative. 03:12

3 And you appear to entirely have forgotten 03:12

4 that there's a stipulation between the parties that 03:12

5 extend to drafts and preparation. And although that 03:12

6 was a very important issue -- 03:12

7 MR. MAO: Not tests. I mean, if your -- if 03:12

8 your colleague is running tests, technical tests for a 03:12

9 professor, I am absolutely entitled to that. It 03:12

10 should have been disclosed in the reporting, and you 03:12

11 know that, Joey. 03:12

12 MR. ANSORGE: This is the equivalent -- 03:12

13 BY MR. MAO: 03:12

14 Q. What part of the test or analysis was done 03:12

15 by the lawyer? 03:12

16 MR. ANSORGE: Mr. Mao, asked and answered 03:13

17 many times over. 03:13

18 THE WITNESS: So, one, I don't understand 03:13

19 all the legal stuff you guys are discussing. I'm 03:13

20 going to again say the following: 03:13

21 The experiments test, I'm going to talk 03:13

22 about over the next few minutes, as I will be scanning 03:13

23 my report, have been done -- have been run essentially 03:13

24 by me in the sense that I supervised them and I 03:13

25 fully -- I gave very, very precise instructions, 03:13

1 Mr. Mao. It's like a lot more precise instructions 03:13
2 than the ones I give on my students, to tell you the 03:13
3 truth. 03:13
4 It's like instructions I give to undergrads 03:13
5 when they are working for me in the context of a 03:13
6 grant. Like do this, one, two, three, four, five. 03:13
7 Extremely precise. You cannot mess it up. It's an 03:13
8 execution task at that point. 03:13
9 And then the reason why I did it is because 03:14
10 I did not want to use USC equipment to actually run 03:14
11 the CPU cycles required to do it. So I gave very 03:14
12 precise instructions that an undergrad could do 03:14
13 easily. 03:14
14 And then Ms. Tracy Gao was the person 03:14
15 that -- hopefully I'm not misspelling her name, last 03:14
16 name -- that did them and then sent the data back to 03:14
17 me, and then there was back and forth, to make sure 03:14
18 everything is properly done. 03:14
19 So the first such case in my report, if you 03:14
20 go to appendix G, profile data, this is the first 03:14
21 case. And let me -- what I'm doing is I'm doing a 03:14
22 search to also point out to where you will see me 03:14
23 mentioning this in the actual report. 03:14
24 Because Mr. Hochman himself cited this 03:14
25 DBLS data, I got the data and I ran the test we are 03:15

1 discussing right now. And you can find more in 03:15
2 paragraph 80 of my report that refers to this data and 03:15
3 the tests. 03:15
4 BY MR. MAO: 03:15
5 Q. Any other parts that were either done by 03:15
6 Ms. Gao or assisted by Ms. Gao? 03:15
7 A. As I said, no parts of my reports was done 03:15
8 by Ms. Gao. 03:15
9 Q. What part contains tests run by Ms. Gao? 03:15
10 A. I'm sorry. What -- 03:15
11 MR. ANSORGE: Objection. Argumentative. 03:15
12 Asked and answered. 03:15
13 BY MR. MAO: 03:15
14 Q. What parts of your report contain tests run 03:15
15 by Ms. Gao? 03:15
16 A. Run. Okay. 03:15
17 What parts of my report contain test results 03:15
18 for which Ms. Gao executed the actual program in 03:16
19 servers other than mine is the way I would put it for 03:16
20 one more time. 03:16
21 And -- so, Mr. Mao, let's just agree on what 03:16
22 I'm saying that has happened. I'm under oath. I'm 03:16
23 telling you exactly what has happened. So let's just 03:16
24 characterize it the way it is and I'm giving you -- I 03:16
25 promise I'm giving you, as always, very accurate 03:16

1 information. 03:16

2 So paragraph 80, I am referring to this, and 03:16

3 there is a table, you can see this table with some 03:16

4 Biscotti cookies and UIDs and a creation timestamp. 03:16

5 Then paragraph 82 is referring to these two 03:16

6 documents that we had a discussion about this earlier 03:16

7 on in my deposition, and you can find them in the 03:16

8 appendix G, as I said, profile data. Paragraph 82 is 03:16

9 referring to the results of this test. 03:16

10 Then there is one more place that I would 03:17

11 like to bring to your attention to that matter and 03:17

12 this is -- 03:17

13 So would you like me to give you paragraphs 03:17

14 so that it's very precise, paragraph numbers? 03:17

15 Q. Yes, sir. Because precise is how you began 03:17

16 the deposition? 03:17

17 A. Perfect. 03:17

18 If you go to paragraph 122, I am discussing 03:18

19 the fact that user agents are served by many, many, 03:18

20 many devices. I have some citations to the fact of 03:18

21 the top 10 most popular user agents. User agents, by 03:18

22 the way, are served by tens of millions of people in 03:18

23 the U.S. 03:19

24 And then in paragraph 122, I am using the 03:19

25 data submitted by the plaintiffs, and I'm doing 03:19

1 basically a matching exercise and I'm reporting some 03:19
2 numbers about user agents and they are common among 03:19
3 multiple plaintiffs in this paragraph. 03:19
4 Q. Any other paragraphs or sections? 03:19
5 A. I am very meticulously going through this. 03:19
6 Okay. If you go to paragraph 120. 03:20
7 Q. Okay. 03:20
8 A. I am analyzing data produced in -- Google 03:20
9 produced under the special master process, essentially 03:20
10 he same data I was referring to before, for 03:20
11 IP addresses now; that they have multiple GAIAS 03:20
12 associated with them. And I actually found 03:21
13 IP addresses with this property as well, particularly 03:21
14 IP addresses that they correspond to more than one of 03:21
15 the plaintiffs. 03:21
16 So 120 paragraph is showing IP addresses 03:21
17 that correspond to more than one of the plaintiffs, 03:21
18 and 122, as I already said, lists UAs that correspond 03:21
19 to more than one of the plaintiffs. 03:21
20 And to be, as always, extremely precise, let 03:21
21 me also go to the appendices to make sure there's no 03:21
22 appendix related to this data. I don't remember. 03:21
23 Just -- 03:21
24 Q. I'm curious, Professor, why didn't you ask 03:21
25 Google for equipment to run your tests and 03:21

1 experiments? 03:21

2 A. I didn't see the need for it. I don't 03:22

3 interact with Google at all. I haven't interacted 03:22

4 with anybody from Google at all throughout this 03:22

5 period. I haven't talked to a single person from 03:22

6 Google. 03:22

7 Q. How much would you estimate the equipment 03:22

8 would have cost you in order to be able to run these 03:22

9 experiments? The ones that you list in your report, 03:22

10 how much would it cost you? 03:22

11 A. I don't -- 03:22

12 MR. ANSORGE: Mr. Mao, I've been quiet for 03:22

13 quite a while, so let me refer you back to the 03:22

14 stipulation which you said does not apply. The first 03:22

15 part of it states explicitly that communications -- 03:22

16 MR. MAO: No speaking objections. Don't 03:22

17 make a speaking objection. 03:22

18 MR. ANSORGE: No. I'm telling -- I'm 03:22

19 speaking to you directly on this. We have a 03:22

20 stipulation saying the content of oral, written, or 03:22

21 other communications -- 03:22

22 MR. MAO: Mr. Ansorge -- 03:22

23 MR. ANSORGE: -- among and between -- 03:22

24 Mr. Mao -- 03:22

25 MR. MAO: The name is not disclosed as part 03:22

1	of --	03:22
2	MR. ANSORGE: -- counsel and the expert or	03:22
3	the expert staff and their supporting firms.	03:22
4	And you are explicitly asking about data	03:23
5	pulls that Dr. Psounis asked his counsel about. And	03:23
6	you're having that listed out in a form in which all	03:23
7	you're doing is creating heat at this point.	03:23
8	We have a specific stipulation that goes to	03:23
9	this issue, Mr. Mao.	03:23
10	MR. MAO: I asked him -- the last question	03:23
11	in which you interrupted me and went on this tirade	03:23
12	was asking him about how much the equipment would have	03:23
13	cost in order for him to acquire and do it himself.	03:23
14	Are you withdrawing -- are you going to	03:23
15	stand down or are we going to pause on that question?	03:23
16	MR. ANSORGE: What I'm objecting to is your	03:23
17	entire line of questioning about Ms. Gao --	03:23
18	MR. MAO: Joey, my deposition -- stop, stop.	03:23
19	Okay?	03:23
20	BY MR. MAO:	03:23
21	Q. Professor, how much would the equipment have	03:23
22	cost in order for you to be able to not use USC's	03:23
23	equipment and do -- run the test on your own	03:23
24	equipment?	03:23
25	MR. ANSORGE: Objection. Calls for	03:23

1	speculation.	03:23
2	THE WITNESS: I do not know.	03:24
3	BY MR. MAO:	03:24
4	Q. You do not know as a technical expert how	03:24
5	much it would have cost you, even an estimate?	03:24
6	A. I --	03:24
7	MR. ANSORGE: Same objection.	03:24
8	THE WITNESS: I have not analyzed, looked	03:24
9	into it, counted cycles, so no.	03:24
10	BY MR. MAO:	03:24
11	Q. And it never occurred to you that you can	03:24
12	ask Google for equipment to run experiments -- run	03:24
13	these tests that you refer to in your report?	03:24
14	MR. ANSORGE: Objection. Mischaracterizes	03:24
15	Exhibit 1. Mischaracterizes prior testimony. And	03:24
16	argumentative.	03:24
17	THE WITNESS: As I said, I have not	03:24
18	interacted with anybody from Google throughout this	03:24
19	time. I don't feel like I am working for Google or	03:24
20	anything like that. I've been retained by the	03:24
21	counsel. The natural thing to do for me was to reach	03:24
22	out to counsel about this. And I'm going to stay out	03:24
23	of the legal arguments that you guys have.	03:25
24	BY MR. MAO:	03:25
25	Q. Have you -- you've done prior expert	03:25

1 reports, technical expert reports in other cases. 03:25
2 Isn't that correct, Professor? 03:25
3 A. Correct. 03:25
4 Q. And people that assist you in the 03:25
5 formulation of your report in those other cases, did 03:25
6 you list them in your report? 03:25
7 A. I don't remember, but I believe -- I'm 03:25
8 trying to remember my recent report. I don't remember 03:25
9 if I listed them or not. It's been some months now. 03:25
10 Q. Do you know whether under the Rules of 03:25
11 Evidence and procedure for experts, do you know 03:25
12 whether or not you need to list people who assisted 03:26
13 you in the creation of your report? 03:26
14 A. No. 03:26
15 MR. ANSORGE: Mr. Mao, same objection 03:26
16 referring to the stipulation between the parties. I 03:26
17 don't want us to get into a shouting match, but it's 03:26
18 beyond the pale, nothing we've ever done with any of 03:26
19 your witnesses and something where you at this point 03:26
20 would have stopped the deposition. We won't do so 03:26
21 because the facts are on our side. But we plead with 03:26
22 you to return to substantive questioning and stop 03:26
23 harassing the witness in this fashion. 03:26
24 BY MR. MAO:
25 Q. Are you sure her last name was Gao, G-a-o? 03:26

1	A. No. I can check.	03:26
2	Q. Was she the only person that assisted you on	03:26
3	these tests?	03:26
4	MR. ANSORGE: Objection. Mischaracterizes	03:26
5	prior testimony. Assumes facts not in evidence.	03:26
6	Asked and answered many times over in direct violation	03:26
7	of the stipulation that the parties have reached with	03:27
8	regard to discovery of expert work.	03:27
9	BY MR. MAO:	03:27
10	Q. Sir, you're not being instructed not to	03:27
11	answer because your counsel knows I'm right.	03:27
12	A. Again, I want to stay out of the legal part.	03:27
13	MR. ANSORGE: Yes.	03:27
14	Object to that entirely, to that	03:27
15	characterization.	03:27
16	THE WITNESS: She was the only person that	03:27
17	executed my detailed instructions about what exactly	03:27
18	to do in order to produce the numbers in the results	03:27
19	that I have in the report.	03:27
20	BY MR. MAO:	03:27
21	Q. Was she the only person who was providing	03:27
22	you materials as well for review?	03:27
23	MR. ANSORGE: Objection. Direct violation	03:27
24	of the stipulation the parties have reached, Mr. Mao.	03:27
25	THE WITNESS: I'm not sure I understand what	03:28

1 you mean by providing me direct materials. 03:28
2 Is it about the test? It's about what? 03:28
3 BY MR. MAO: 03:28
4 Q. Going back to Exhibit No. 9. 03:28
5 After you having read all those paragraphs 03:28
6 you did to find which Tracy we're talking about, do 03:28
7 you recall what joining beacons are for 03:28
8 Google Analytics? 03:28
9 MR. ANSORGE: Objection. Asked and 03:28
10 answered. 03:28
11 THE WITNESS: I'm giving you the same answer 03:28
12 I gave before. 03:28
13 BY MR. MAO: 03:28
14 Q. Which is what? 03:28
15 A. I don't know what is the rules here. What 03:28
16 are the rules here? 03:28
17 Q. The rules are if your attorney does not 03:28
18 instruct you to answer -- not to answer, you're 03:28
19 required to answer. So please, Professor -- 03:28
20 MR. ANSORGE: Yeah. 03:29
21 BY MR. MAO: 03:29
22 Q. -- what are joining beacons for 03:29
23 Google Analytics? 03:29
24 MR. ANSORGE: There's valid objections. 03:29
25 Asked and answered. Argumentative. It's harassment 03:29

1 at this point. Your direct flagrant violation of the 03:29
2 stipulation the parties had reached is noted. 03:29

3 I am shocked by it, Mr. Mao. It's not 03:29
4 something you've done with you -- why don't you seek 03:29
5 some discovery of Dr. Psounis' actual report and 03:29
6 opinions instead of seeking discovery of his 03:29
7 communications with counsel. 03:29

8 BY MR. MAO: 03:29

9 Q. Joining beacons, what are joining beacons 03:29
10 for Google Analytics? 03:29

11 MR. ANSORGE: Objection. Asked and 03:29
12 answered. 03:29

13 THE WITNESS: As I recall, I answered 03:29
14 before. In order to give you a precise answer to 03:29
15 that, I would like you to give me some additional 03:29
16 documentation. For example, since this is -- this 03:29
17 question is coming out of Exhibit 9, the deposition of 03:29
18 Stephen Chung, then I would see exactly the context of 03:30
19 what we are talking about. 03:30

20 BY MR. MAO: 03:30

21 Q. Do you know whether or not joining beacons 03:30
22 is a common element or component of Google Analytics? 03:30

23 A. Beacons, joining beacons, tracking beacons, 03:30
24 there are a lot of -- all kinds of beacons in very, 03:30
25 very different setups. It's a very complex system. I 03:30

1 just don't want to mischaracterize anything. 03:30

2 Q. Sir, how do you reach your opinions on 03:30

3 joinability about Google Analytics if you don't even 03:30

4 sitting here today know what a joining beacon is for 03:30

5 Google Analytics? 03:30

6 MR. ANSORGE: Objection. Argumentative. 03:30

7 Form. 03:30

8 THE WITNESS: I will go through my report 03:30

9 and I can tell you exactly how I reached my opinions 03:30

10 about the joinability issue. It is covered in 03:31

11 opinion 3 of mine. Opinion 3 of mine is on a number 03:31

12 of things. It's "Private Browsing Profiles, 03:31

13 Service-Side Processes, and Data Joinability," which 03:31

14 is the reason why I am bringing it up to your 03:31

15 attention. 03:31

16 And I could also -- I can also actually even 03:31

17 give you a high level -- I don't mind doing that -- a 03:31

18 high-level summary of how I reached my opinion. 03:31

19 BY MR. MAO: 03:31

20 Q. Specifically about joining beacons for 03:31

21 Google Analytics. 03:31

22 Let me ask you, Professor, do you need to 03:31

23 know whether or not joining beacons for 03:31

24 Google Analytics is discussed by the -- by the expert 03:31

25 in which you are hired to rebut, Mr. Hochman? 03:31

1 A. There is discussion about what is beacons, 03:32
2 including joining beacons in -- as far as I recall, in 03:32
3 Mr. Hochman's report. And you are welcome to give me 03:32
4 Mr. Hochman's report as an exhibit, and that's going 03:32
5 to actually help us move on. 03:32

6 Because my opinion on joinability and the 03:32
7 fact that there is no joining of unauthenticated and 03:32
8 authenticated data in my opinion, depends on a lot of 03:32
9 things. And I'm going to go and explain to you now in 03:32
10 what it depends because you are questioning -- you are 03:32
11 asking me actually -- your question is, to the best of 03:32
12 my understanding, "How are you reaching this opinion 03:32
13 of yours?" 03:32

14 So I am reaching this opinion of mine as 03:33
15 follows: 03:33

16 The -- first of all, the data that we are 03:33
17 discussing about, the data at issue -- 03:33

18 Q. Join beacons, Professor. 03:33

19 MR. ANSORGE: Mr. Mao, please, why don't you 03:33
20 let him respond to your question. 03:33

21 MR. MAO: He's not. He's trying to move on 03:33
22 and shift to a different subject. 03:33

23 MR. ANSORGE: Well, you have repeatedly 03:33
24 interrupted him. You've violated the stipulation the 03:33
25 parties have reached. You've applied a double 03:33

1	standard that's entirely different from how we've	03:33
2	treated your witnesses --	03:33
3	MR. MAO: Wait, wait, wait, wait.	03:33
4	MR. ANSORGE: Why don't you let him answer	03:33
5	your question.	03:33
6	MR. MAO: Okay. So let's go back to your	03:33
7	little objection here, okay, I violated a stipulation.	03:33
8	Mr. Ansorge, do you know which Tracy the	03:33
9	professor is speaking to? Because apparently he's	03:33
10	having trouble recalling.	03:33
11	Well?	03:33
12	Before you can say I violate a stipulation,	03:33
13	you need to tell me who this Tracy is. Mr. Ansorge?	03:33
14	MR. ANSORGE: You're violating the	03:34
15	stipulation, Mr. Mao. We can discuss it in detail --	03:34
16	MR. MAO: I don't know who the Tracy is.	03:34
17	Who's this Tracy? Who is it? Mr. Ansorge, who is it?	03:34
18	MR. ANSORGE: Who --	03:34
19	MR. MAO: What are her qualifications?	03:34
20	MR. ANSORGE: Mr. Mao, he's referring to	03:34
21	counsel that at his behest, went and looked up a	03:34
22	simple data query.	03:34
23	You've spent an hour or more focused on an	03:34
24	aspect that's directly in flagrant violation of the	03:34
25	stipulation the parties have reached.	03:34

1 It's the equivalent of him asking for 03:34
2 somebody to pull documents that relate to 03:34
3 fingerprinting. That's what he's done with the data. 03:34
4 He asks for, pulls for an IP address. Those are the 03:34
5 pulls that were done. All of this is a direct 03:34
6 violation of the stipulation, obviously. 03:34
7 The other part that I've been referring to, 03:34
8 Mr. Mao, is that I bent over backwards with your 03:34
9 witnesses to not interrupt them, to permit them to 03:34
10 answer. 03:34
11 What we get from you, while those 03:34
12 conversations are ongoing, are objections such as 03:34
13 "Let the record reflect that the witness has asked for 03:34
14 a document and counsel refuses to show it to him." 03:34
15 How often has Dr. Psounis now asked for 03:35
16 Mr. Hochman's report, which is what he's actually 03:35
17 rebutting? Why don't you convert this from a memory 03:35
18 test to something that will actually meet his opinions 03:35
19 on the basis on which they're formulated? 03:35
20 MR. MAO: Because I'm trying to figure out 03:35
21 who this Tracy is and whether or not she actually has 03:35
22 a computer science degree. 03:35
23 What is your representation, Mr. Ansorge? 03:35
24 MR. ANSORGE: My representation is you are 03:35
25 violating the stipulation by explicitly -- and I'll 03:35

1 finish, I'm answering Mr. Mao -- by explicitly seeking 03:35
2 discovery of communications with counsel. 03:35

3 You have misrepresented what Dr. Psounis has 03:35
4 been describing as simple lookups and queries as 03:35
5 somehow being improper and you burned a huge amount of 03:35
6 time. And you're now interrupting him when he is 03:35
7 actually describing some of the basis in his opinions. 03:35
8 And that's the extent of it. 03:35

9 Now, I think I've made my objection clear on 03:35
10 the record. I'm surprised that you're doing this to 03:35
11 be frank, Mark. This is not something we have done to 03:35
12 you, we would do to you. We'll -- we're going to have 03:36
13 to probably take it up with the Court after this. 03:36

14 MR. MAO: Take it up to the Court. Because 03:36
15 his recollection is that you represented -- somebody 03:36
16 at Quinn Emanuel represented that this Tracy has a 03:36
17 technical degree. 03:36

18 Okay? 03:36

19 And assisted in the running of the tests. 03:36

20 I am absolutely within my bounds to ask and 03:36
21 figure out who this Tracy is, okay, who has the 03:36
22 science degree. 03:36

23 Does this Tracy have a science -- have a 03:36
24 computer science degree or not? 03:36

25 MR. ANSORGE: Objection. Direct violation 03:36

1 of the stipulation the parties have reached. 03:36
2 Mr. Mao, why don't you ask the witness some 03:36
3 questions and he'll respond. 03:36
4 BY MR. MAO: 03:36
5 Q. Well, Professor, does she have a computer 03:36
6 science degree? 03:36
7 MR. ANSORGE: Objection. Asked and 03:36
8 answered. Objection. Violation of the stipulation 03:36
9 the parties have reached. 03:36
10 MR. MAO: You are going to go up to the 03:36
11 judge and say that it is -- in a technical deposition 03:36
12 of an expert, when I ask him who assisted them and 03:36
13 what kind of foundational competence they have in the 03:37
14 special matter under examination, you're going to say 03:37
15 that I am not entitled to that information, 03:37
16 Mr. Ansorge? 03:37
17 MR. ANSORGE: I'm going to say you were 03:37
18 explicitly inquiring into communications with counsel. 03:37
19 You understood that you were doing so at the time. 03:37
20 And you've done it for some reason instead of asking 03:37
21 the witness questions about their actual opinion. 03:37
22 That's something we can take up offline. 03:37
23 What I would plead with you, Mr. Mao, is why 03:37
24 don't you find your way back to the opinions that 03:37
25 Dr. Psounis has offered. There's 13 of them. You've 03:37

1 asked about two at this point or three. Why don't you 03:37
2 focus on those instead of his communications with 03:37
3 counsel which are explicitly categorically excluded by 03:37
4 stipulation of the parties. 03:37

5 MR. MAO: So who is Tracy then? Can you 03:37
6 establish for me that she's actually covered by the 03:37
7 stipulation? Who? Mr. Ansorge? 03:37

8 MR. ANSORGE: Same objection. 03:37

9 MR. MAO: You won't tell me who this Tracy 03:37
10 is on the record. 03:37

11 MR. ANSORGE: I'm not being deposed here. 03:38
12 Same objection. 03:38

13 MR. MAO: So then how am I supposed to take 03:38
14 your word that this is covered by the stipulation? 03:38

15 Sir -- 03:38

16 MR. ANSORGE: Do you have any questions for 03:38
17 Dr. Psounis? You indicated at one point that you were 03:38
18 planning on finishing at 4:00 p.m. We are getting 03:38
19 close to that time. 03:38

20 MR. MAO: No. No, I'm not. Because -- 03:38
21 because -- you've got to undisclose either technical 03:38
22 expert or nontechnical expert, and I'd like to know 03:38
23 which one that is in an expert deposition. 03:38

24 MR. ANSORGE: There's no disclosure of an 03:38
25 expert here. 03:38

1	You were asking Dr. Psounis about	03:38
2	communications with counsel. You're well aware of who	03:38
3	on our team is named Tracy Gao.	03:38
4	I take offense and I'm surprised by this	03:38
5	little performance you're putting on for us right now.	03:38
6	You understand these are communications with	03:38
7	counsel. If you want to proceed and say that somehow	03:38
8	it's proper for you to ask specifically what was	03:38
9	pulled at one time, what documents were being	03:39
10	provided, you can do so.	03:39
11	We've made it very clear on the record. I	03:39
12	believe Dr. Psounis has been more than forthcoming.	03:39
13	Why don't you actually ask him some	03:39
14	questions about his conclusions that he's offering in	03:39
15	his report that he specifically rebut your plaintiffs'	03:39
16	opinions?	03:39
17	MR. MAO: Because Rule 702 allows me to	03:39
18	analyze the data, the methodology, and the way the	03:39
19	methodology was used applied against the data to	03:39
20	arrive at the expert's conclusions. And I'm trying to	03:39
21	understand with the methodology of how the data was	03:39
22	pulled.	03:39
23	Are you going to obstruct me from that,	03:39
24	Mr. Ansorge?	03:39
25	MR. ANSORGE: Why don't you actually ask	03:39

1	Dr. Psounis about that. Why don't you ask him --	03:39
2	MR. MAO: I have.	03:39
3	MR. ANSORGE: -- about the specific --	03:39
4	MR. MAO: The --	03:39
5	MR. ANSORGE: -- searches that he has	03:39
6	requested -- no. That is not what you've been doing,	03:39
7	Mr. Mao.	03:39
8	So why you don't actually ask Dr. Psounis	03:39
9	what the specific search was that he had asked for,	03:39
10	what specific data he had run, and whether he had	03:39
11	access to that same data.	03:39
12	And I think we can wrap this up much quicker	03:39
13	than you've been doing so far.	03:40
14	MR. MAO: Let's take a break.	03:40
15	Off the record, please.	03:40
16	THE VIDEOGRAPHER: Going off the record.	03:40
17	The time is 3:40 p.m.	03:40
18	(Break taken in proceedings.)	03:40
19	THE VIDEOGRAPHER: Back on the record. The	04:16
20	time is 4:16 p.m.	04:16
21	BY MR. MAO:	04:16
22	Q. Professor, during the break, did you speak	04:16
23	with Mr. Ansorge or any attorney regarding the	04:16
24	substance of the testimony here today?	04:16
25	A. No, I did not.	04:16

1 MR. MAO: I'm just going to put on the 04:17
2 record that Mr. Ansorge appears to be okay with us 04:17
3 agreeing to stipulation where if I don't ask you all 04:17
4 the questions regarding your interactions with this 04:17
5 Tracy, I am not waiving my right or ability to take 04:17
6 that up to the Court or ask additional questions 04:17
7 regarding that should the Court grant that. 04:17
8 Are we in agreement, Mr. Ansorge? 04:17
9 MR. ANSORGE: I would put it like that. 04:17
10 We're in agreement that you've preserved the issue 04:17
11 that you're referring to. 04:17
12 I'm not sure what the second part was of 04:17
13 what you just said, where you have the right to seek 04:17
14 more questions or to have more discovery of Ms. Gao's 04:17
15 role. That's the part that I wasn't -- I don't 04:17
16 believe that's what John was describing earlier 04:17
17 either. 04:17
18 Let me explain. My understanding was that 04:17
19 plaintiffs would agree to cease this line of 04:17
20 questioning. If we have agree they have sufficiently 04:17
21 preserved the issue, that they can raise it with the 04:18
22 Court, if they so choose. 04:18
23 And I'm pretty sure that's what John was 04:18
24 saying. It sounds like you've converted it into 04:18
25 something different. 04:18

1 MR. MAO: No. No. 04:18

2 We would need to reserve our right to also 04:18

3 be able to ask questions if you happen to be wrong on 04:18

4 the existing questions. 04:18

5 MR. ANSORGE: Well, I think you're reserving 04:18

6 the right to raise the issue with the Court. If the 04:18

7 Court determines that additional questions are 04:18

8 appropriate, then it's going to be up to the Court. 04:18

9 I mean, at this point, I'm not going to 04:18

10 stipulate to further questions into Dr. Psounis' 04:18

11 communications with counsel being appropriate or you 04:18

12 having a right to those. I don't believe you ever had 04:18

13 a right to those. 04:18

14 So what we can stipulate to is that 04:18

15 plaintiffs have sufficiently asked questions about 04:18

16 Tracy Gao, counsel, to preserve the issue, if they 04:18

17 want to raise it with the Court. 04:18

18 And that's what John had asked us to 04:18

19 stipulate to, and that's what we're prepared to 04:19

20 stipulate to today. 04:19

21 MR. MAO: I disagree on your word of the use 04:19

22 "sufficient." 04:19

23 Can we at least remove the word "sufficient" 04:19

24 from your offer or stip? Why don't you put back in 04:19

25 what your offer and your version of the stipulation is 04:19

1 without the word "sufficient"? 04:19

2 MR. ANSORGE: Plaintiffs have preserved the 04:19

3 issue so that they can raise it with the Court. And 04:19

4 they will cease the line of questioning in discovery 04:19

5 into Dr. Psounis' communications with counsel for 04:19

6 Google, in particular Tracy Gao. 04:19

7 MR. MAO: And I'm reserving my right to be 04:19

8 able to ask the Court to be able to get additional 04:19

9 questions on this topic, should the Court desire. 04:19

10 Do we agree on that? 04:19

11 MR. ANSORGE: That's fine. I don't think 04:19

12 you're waiving any rights to ask the Court for any 04:19

13 specific relation. 04:20

14 MR. MAO: Okay. 04:20

15 BY MR. MAO: 04:20

16 Q. Professor Psounis, with regard to 04:20

17 IP addresses and whether or not Google uses IP 04:20

18 addresses to join data, do you have any evidence that 04:20

19 Google does not use IP addresses to join data? 04:20

20 MR. ANSORGE: Objection. Form. Assumes 04:20

21 facts not in evidence. Calls for speculation. 04:20

22 THE WITNESS: First of all, when you say 04:21

23 data, I assume you are referring to the data at issue, 04:21

24 meaning whether Google is using IP addresses to join 04:21

25 unidentified data with identified data? 04:21

1	BY MR. MAO:	04:21
2	Q. No.	04:21
3	Whether or not Google uses IP addresses to	04:21
4	join any data?	04:21
5	A. I have not been asked to opine on whether	04:21
6	Google uses IP addresses to join any data. I've been	04:21
7	asked to opine on whether Google uses IP addresses or	04:21
8	other things to join the data at issue. And in	04:21
9	particular to join unauthenticated data from private	04:21
10	browsing mode to authenticated data.	04:21
11	And my opinion is clear that this is	04:22
12	absolutely not the case. Google does not do this with	04:22
13	IP addresses or with other stuff.	04:22
14	Q. If a user signs into a third-party website	04:22
15	that uses either PPIIDs or GA IDs, would that data be	04:22
16	considered authenticated or unauthenticated data?	04:22
17	A. I can answer, but I want to be as user	04:22
18	precise and stick to the data at issue.	04:22
19	So are you referring to a user that is in	04:22
20	private browsing mode and then signs into some Google	04:23
21	servers with a GAIA ID or in some first party with a	04:23
22	PPIID?	04:23
23	Can you be more precise?	04:23
24	Q. If the user signs into a third-party web --	04:23
25	third-party website that uses either PPIIDs or GA IDs,	04:23

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1 okay, is that going to be authenticated or 04:23
2 unauthenticated -- or unauthenticated data. 04:23

3 A. So -- okay. So are you referring to users 04:23
4 that they are browsing the internet in private 04:23
5 browsing mode? 04:23

6 Q. Yes. In private browsing mode. Thank you. 04:24

7 A. Okay. 04:24

8 So second clarification, you say 04:24
9 third-party. 04:24

10 PPIDs are first party. It's okay. I'm just 04:24
11 stating this as a matter of fact. It's totally fine. 04:24

12 So the question is -- let's split it in two 04:24
13 parts. 04:24

14 A user is in private browsing mode, and then 04:24
15 signs with a PPID, let's say, in New York Times. 04:24

16 This is the scenario, for example, you're 04:24
17 asking with; correct? 04:24

18 Q. Yes. 04:24

19 A. So this user is -- has not signed into his 04:24
20 Google account and henceforth, for starters, is a user 04:24
21 that is in private browsing mode, and it's a 04:25
22 signed-out user and it is visiting a non-Google 04:25
23 website, so it's a user that is at issue. And this 04:25
24 user, by not having been signed into Google, from the 04:25
25 point of view of Google is an unauthenticated user. 04:25

1 Q. Okay. So let's stay with that for a moment. 04:25
2 Okay? 04:25
3 So let's say that user also at that time 04:25
4 opens up a normal mode browsing session. 04:25
5 Okay? 04:25
6 Goes to the same website, this time sign in 04:25
7 on the browser, okay, into the Google browser, okay, 04:26
8 using his Google ID. And then he logs into the same 04:26
9 third-party website. 04:26
10 Okay? 04:26
11 Is the data that you previously said was 04:26
12 unauthenticated, does that become authenticated data 04:26
13 or is that still unauthenticated data? 04:26
14 MR. ANSORGE: Objection. Form. Compound. 04:26
15 THE WITNESS: It is not clear to me what you 04:26
16 are describing with your second scenario. 04:26
17 So you said now a user is in a regular 04:26
18 browsing mode. 04:26
19 BY MR. MAO: 04:26
20 Q. Yes. 04:26
21 A. Then the user is signing into his Google ID; 04:26
22 right? 04:26
23 Q. Yes. 04:26
24 A. And then the user continues browsing. 04:26
25 Whether it goes into a third party or a first party or 04:26

1 whatever, he already signed in with his Google ID; 04:26
2 correct? 04:27
3 Q. Right. And then he's going to the same 04:27
4 website as what he had visited in the private browsing 04:27
5 session. 04:27
6 A. Whether it goes to the same website or not, 04:27
7 since the user has signed in at Google, he's an 04:27
8 authenticated user. 04:27
9 Q. Right. 04:27
10 So what about that prior -- that other 04:27
11 window, okay, where he was signed out but signed into 04:27
12 the third-party website in private mode or in 04:27
13 incognito mode, okay, do you and I agree that between 04:27
14 the two different sessions is sharing the PPID? 04:27
15 MR. ANSORGE: Objection. Form. 04:27
16 THE WITNESS: So the PPID is set by the 04:27
17 publisher that is using the PPID for the certain user. 04:27
18 It is the same PPID. It is a PPID that -- it is an ID 04:28
19 that, per the rules, is encrypted and it does not 04:28
20 contain any PII by the rules that -- in the contracts, 04:28
21 if you wish, that Google has with the first-party 04:28
22 provider, New York Times, whatever we are discuss now. 04:28
23 So, yes, it is the same PPID, but always 04:28
24 thinking the -- the topic at issue here, this PPID, as 04:28
25 I said, is designed that Google has no idea to whom 04:28

1	this PPID belongs to because it's encrypted and it	04:28
2	doesn't have PII. And it --	04:28
3	Q. Okay. So --	04:28
4	A. -- bunch of times so --	04:28
5	Q. Okay. But let me take another step.	04:28
6	So with this second sign-in, okay, in normal	04:28
7	mode, okay, you have now, we agree, the same PPID, is	04:29
8	the prior sessions data authenticated or	04:29
9	unauthenticated now? Do you know?	04:29
10	A. I do know.	04:29
11	MR. ANSORGE: Objection. Form.	04:29
12	THE WITNESS: So let me explain. The first	04:29
13	sessions data, and to be precise, the private browsing	04:29
14	session data are unauthenticated. The only -- I don't	04:29
15	want to offer multiple different -- let me just stick	04:29
16	to that.	04:29
17	They are unauthenticated data. So there is	04:29
18	a cookie jar -- you can -- do you want me to -- I can	04:29
19	just walk you also through my report, if you would	04:29
20	like, with schematics and stuff to maybe help with my	04:29
21	explanations from Exhibit 1.	04:30
22	BY MR. MAO:	04:30
23	Q. No.	04:30
24	I just want to know, that first session in	04:30
25	private mode, right, was that -- does that become	04:30

1 authenticated or unauthenticated data? 04:30

2 I'm asking for Google purposes. It's not 04:30

3 meant to be a trick question. It's merely asking you 04:30

4 does it have to be authenticated or unauthenticated? 04:30

5 A. And I am trying to explain my answers so 04:30

6 that you understand, I don't want to say here is the 04:30

7 answer. 04:30

8 So the data of this first session, the 04:30

9 private browsing session, has a cookie jar associated 04:30

10 with it. In this cookie jar there is the PPID, right, 04:30

11 you refer to. And -- 04:30

12 Q. Mm-hm. 04:30

13 A. -- there is no GAIA ID in there. 04:30

14 Because the second session you are referring 04:30

15 to, which was originally on a regular browser -- 04:30

16 regular browsing mode, and then I signed in into my 04:30

17 gmail, for example, some Google account of mine, it 04:31

18 does have a GAIA. 04:31

19 So these are two separate sessions. They 04:31

20 have two separate cookie jars. The first cookie jar 04:31

21 that corresponds to the first session doesn't have any 04:31

22 GAIA, and it is unauthenticated. It is -- and it 04:31

23 stays unauthenticated. Because what happens to the 04:31

24 second session, and whether the data -- and whether 04:31

25 the second session of the data from the second session 04:31

1 are not authenticated has nothing to do with what 04:31
2 happens with the first session. This is separate 04:31
3 sessions. 04:31

4 Q. Okay. Do you know whether or not Google 04:31
5 uses that linkage, the linkage between the first 04:31
6 session and the second session, that shares the common 04:31
7 PPID? 04:31

8 A. I'm not going call it linkage. It is the 04:31
9 same PPID. But because the PPID is encrypted, and 04:31
10 because the data that we are discussing are in 04:32
11 completely different logs, I do know that Google does 04:32
12 not attempt to make any joining of the two different 04:32
13 sets of data. 04:32

14 Q. That's not my question. Not my question. 04:32

15 My question is: Does Google use that 04:32
16 linkage, for example, for a conversion? 04:32

17 MR. ANSORGE: Objection. Form, and 04:32
18 argumentative. 04:32

19 THE WITNESS: So continuing on previous 04:32
20 thought we come to the conversion. I do know that 04:32
21 Google does not use that linkage to join the data. 04:32

22 Now, the new -- the follow-up question, 04:32
23 which is making more specifically -- this is great -- 04:33
24 is whether Google is or is not using the data for 04:33
25 conversion. 04:33

1 So I will -- let me just go through the 04:33
2 corresponding part of my report. I think speaking 04:33
3 like that, it's a little bit -- 04:33
4 BY MR. MAO:
5 Q. I'm simply asking you whether or not Google 04:33
6 would use that, okay, that relationship, whether you 04:33
7 want to call it linkage or not, for a conversion? 04:33
8 A. And I'm going to answer this. 04:33
9 Q. It's not answered in your report. 04:33
10 Are you going to point me to a part of your 04:33
11 report that answers that? 04:33
12 A. Yes. I'm going to point at -- I can answer 04:33
13 now. But I'm trying to be -- 04:33
14 Q. Okay. And I want you to answer it. I don't 04:33
15 need your report. If your report would help basically 04:33
16 answer the question -- 04:33
17 A. Yes. 04:33
18 Q. -- directly -- 04:33
19 A. It will. 04:33
20 So let me go -- 04:33
21 Q. Why can't you just answer that right now. I 04:33
22 mean, it's a yes-or-no question. 04:33
23 MR. ANSORGE: Objection. Argumentative. 04:33
24 THE WITNESS: I think that my answer will be 04:33
25 more clear if I point to a specific section in my 04:34

1 report. I can show you a picture. So if you can -- 04:34
2 BY MR. MAO: 04:34
3 Q. I don't need a picture to illustrate. 04:34
4 I know you do know that I don't have a 04:34
5 technical degree, but I can assure you that I 04:34
6 understand the technical aspects of this case. 04:34
7 Okay? 04:34
8 I'm simply asking you: Does Google use that 04:34
9 relationship for conversions? 04:34
10 And my next question is going to be how do 04:34
11 you know, whatever your answer is? 04:34
12 A. So I'm going to answer this. Give me one 04:34
13 second. And I'm going to just use my report for my 04:34
14 own -- you don't need it, it's great -- for my own 04:34
15 uses. I just think it grounds the discussion but -- 04:34
16 so let me answer in a manner that I think it's more 04:34
17 precise and more helpful. 04:34
18 So I have to find the corresponding part 04:34
19 now. Now this is opinion 4, I believe, about 04:34
20 conversions. 04:35
21 Okay. Here we are. 04:35
22 So when it comes to measuring conversions, I 04:35
23 do have a separate opinion and it's a short opinion, 04:35
24 and it starts at paragraph 86. 04:35
25 So as you can see in the case of, for 04:35

1 example, paragraph 87, in order for Google to do this, 04:35
2 meaning use this for conversions -- 04:35
3 Q. Wait, wait, wait. 04:35
4 You're saying mapping is the same thing as 04:35
5 conversions? 04:35
6 A. I'm sorry? 04:35
7 Q. You're looking at 87; right? I'm asking 04:35
8 about conversions. I'm just making sure. Because 87 04:35
9 does not use the word "conversions." 04:35
10 A. Okay. I am trying to explain to you. You 04:35
11 said that you are not a technical expert. 04:35
12 Q. Okay. Yeah, please. 04:36
13 A. Again, I'm trying to explain to you, because 04:36
14 the way conversions work is through mapping. 04:36
15 So I'm building up so that you understand. 04:36
16 You can see paragraph 88, if you will. The way 04:36
17 conversions work is the following: 04:36
18 You have two Biscotti IDs, and they are both 04:36
19 connected to a GAIA ID, to the same GAIA ID. This is 04:36
20 how the linkage takes place. This is how the linkage 04:36
21 takes place. And there have been, I believe -- not I 04:36
22 believe -- also testimony from Google engineers to 04:36
23 that effect. 04:36
24 So in the scenario you described to me, the 04:36
25 first PPID, which is converted to a Biscotti ID, as 04:36

1 you may or may not know -- it doesn't really matter 04:36
2 but just to know that we are talking about this 04:36
3 here -- is not mapped to a GAIA ID. This is no link 04:36
4 between the first private browsing session Biscotti 04:36
5 ID, PPID, that essentially tells the Biscotti ID that 04:37
6 you discussed about, there is no mapping, there's no 04:37
7 link between this and the GAIA ID. 04:37

8 And hence, it cannot be used in the context 04:37
9 of this close device link that you see in this basic 04:37
10 idea of this paragraph 88. 04:37

11 Q. So you do not agree with me that in the 04:37
12 GAIA log is also going to sit -- for the second 04:37
13 session, you don't agree with me that it's going to 04:37
14 include both a GAIA ID and a Biscotti -- a [REDACTED] 04:37
15 [REDACTED]? 04:37

16 A. No. This is not what I said. 04:37

17 The second session has a GAIA ID and a PPID, 04:37
18 and hence the second session PPID being linked to a 04:37
19 GAIA ID can be used for conversions. 04:38

20 There are other -- 04:38

21 Q. So we are saying the same thing. Wait, 04:38
22 wait, wait. So that is my question. 04:38

23 My question is, right, is that PPID and the 04:38
24 transactions associated with that PPID, okay, after 04:38
25 the sign in used for conversions? 04:38

1 A. So the encrypted and hashed PPID that has -- 04:38
2 is tending to a Biscotti ID of the second scenario 04:38
3 that you are describing this, which is connected to a 04:38
4 GAIA ID, could potentially be used for conversions, 04:38
5 yes. It can. I can be used. 04:38
6 Q. Right. 04:38
7 A. It is the first PPID after it is -- and not 04:38
8 just the PPID. It's essentially the actions of this 04:38
9 private browsing user that's the key that they are not 04:39
10 converted. They are not being used for conversions. 04:39
11 You see, I'm trying to go to the essence of 04:39
12 the case here -- 04:39
13 Q. How are you -- how do you know that? How do 04:39
14 you know that? 04:39
15 A. I just explained how it's impossible with 04:39
16 the way the system is implemented, based on the 04:39
17 documents of course that I have reviewed, for this to 04:39
18 occur. 04:39
19 Because the way it works is that the first 04:39
20 PPID is not associated with a GAIA. So the way it 04:39
21 works is the moment that there is a conversion, there 04:39
22 is no GAIA to associate with the PPID of the first 04:39
23 session. So the source code will not work. 04:39
24 Q. But the PPID is the same PPID in both 04:39
25 sessions. 04:39

1	Do we disagree?	04:39
2	A. I do not disagree that a user has the same	04:39
3	PPIID in as many sessions as the user is involved,	04:39
4	private or not private, with a certain publisher. It	04:40
5	is the same PPIID.	04:40
6	But this PPIID, as I said, even though it's	04:40
7	the same PPIID, then it is encrypted. Then it is	04:40
8	hashed. And the two PPIIDs now, I'm separating them	04:40
9	because they are now two different PPIIDs. They may --	04:40
10	because there is no linkage between them -- because	04:40
11	there is no linkage between them and the GAIA. There	04:40
12	is only one GAIA that is linked to a GAIA, not the	04:40
13	other GAIA.	04:40
14	That's why I was showing you this --	04:40
15	Q. Have you considered whether or not there's	04:40
16	any Google documentation showing that Google uses	04:40
17	PPIIDs that as the linkage and not just GAIA?	04:40
18	A. I have.	04:40
19	I'm sorry. Am I answering too fast? I	04:40
20	should wait a couple seconds.	04:40
21	Based on all the documents that I have	04:40
22	reviewed, including the testimony and the depositions	04:40
23	from the engineers, I didn't find anything that says	04:40
24	that Google would use private browsing -- it's	04:41
25	important -- private browsing session PPIIDs for	04:41

1 conversion. 04:41

2 Q. No, no. Different question. 04:41

3 My question to you is: Do you know whether 04:41

4 or not Google uses, okay, [REDACTED] for 04:41

5 conversions, even without a GAIA ID? 04:41

6 MR. ANSORGE: Objection. Form -- 04:41

7 BY MR. MAO: 04:41

8 Q. The same PPID -- yes. The same [REDACTED] 04:41

9 [REDACTED] across different sessions. 04:41

10 MR. ANSORGE: Objection. Form. 04:41

11 Argumentative. Asked and answered. 04:41

12 THE WITNESS: So as I -- okay. So I'm going 04:41

13 to go back to my report to help again. 04:41

14 So in paragraph 88, I say that conversions 04:41

15 are measured through mapping a GAIA ID to a 04:41

16 Biscotti ID. And for all practical purposes, PPID is 04:41

17 now converted to a Biscotti ID. 04:42

18 So if there is no such mapping between the 04:42

19 Biscotti ID -- the PPID converted to the Biscotti ID 04:42

20 in question with a GAIA ID, the conversion is not 04:42

21 going to take place. 04:42

22 So, again, it is not that conversion takes 04:42

23 place in the absence of a GAIA ID. It's the GAIA ID 04:42

24 that does this, not the PPID. 04:42

25 And I can even explain why the system is 04:42

1 designed like that, but I don't want to go there 04:42

2 unless you want to. But I'm just saying. 04:42

3 BY MR. MAO:

4 Q. Now, setting aside conversions, could the 04:42

5 same PPIDs be used to identify users? 04:42

6 A. No. PPIDs, the way they have been designed 04:42

7 cannot be used to identify users. And there are 04:42

8 multiple steps that Google has taken, and I can again 04:42

9 use my -- 04:43

10 Q. So let me go back. 04:43

11 You and I agree that it was the same PPID, 04:43

12 right, in the scenario in both sessions? The provide 04:43

13 browsing session and the incognito session; right? 04:43

14 You're saying that the same PPID could not 04:43

15 be used to identify the user in the GAIA state? 04:43

16 MR. ANSORGE: Objection. Form. Compound. 04:43

17 And incomplete hypothetical. And calls for 04:43

18 speculation. 04:43

19 THE WITNESS: So my understanding of the 04:43

20 question was whether a PPID can be used to identify a 04:43

21 user by Google? 04:43

22 Is this the question or am I 04:43

23 misunderstanding the question? 04:43

24 BY MR. MAO:

25 Q. Yeah. 04:43

1 Can we use the same PPID across those two 04:43
2 sessions to identify users? 04:43
3 A. No, no. It's -- can you -- you can repeat 04:43
4 the question. You're the one that comes up with 04:43
5 questions so I don't feel -- 04:43
6 BY MR. MAO: 04:44
7 Q. Yeah, I know. I'm literally trying. 04:44
8 A. Maybe I can help and say -- I don't know. 04:44
9 You go for it. Go for it. Ask the question -- 04:44
10 Q. Right. 04:44
11 So you and I agree that it's the same PPID 04:44
12 in those two sessions. 04:44
13 Why can't I use that to identify users and 04:44
14 they could retrieve and find out what their PPID is? 04:44
15 A. But that's exactly what you cannot do. This 04:44
16 is what I'm explaining. 04:44
17 So -- so let me talk about PPIDs -- first 04:44
18 let me explain what happens with a PPID, regardless of 04:44
19 whether it's in a private browsing mode, not private 04:44
20 browsing mode, because this is going to then help 04:44
21 build up to the next more complicated question, which 04:44
22 is but here are two sessions, a private browsing 04:44
23 session and a regular session, and they -- the user 04:44
24 has logged in through both sessions in New York Times 04:44
25 so there is the same PPID. 04:44

1 So let me first build up the first piece -- 04:44
2 Q. Yeah. And my question is basically going to 04:44
3 be why can't I then just log in, right, to the same 04:44
4 website again, get my PPID in whatever form that is, 04:44
5 and use that to look up the different sessions? 04:45
6 That's my question. 04:45
7 A. You cannot, and that's what I'm going to 04:45
8 explain. So -- 04:45
9 MR. ANSORGE: Objection. Vague. Incomplete 04:45
10 hypothetical. 04:45
11 BY MR. MAO: 04:45
12 Q. Go ahead, please. 04:45
13 A. I'm going through my report to find the 04:45
14 corresponding paragraph because I think it's going to 04:45
15 help. 04:45
16 So in paragraph 59, I'm starting the 04:45
17 building block with how PPIDs are received and how 04:45
18 they are created, what is their property. 04:45
19 We can skip up -- I'm going to just cut to 04:45
20 the chase. And, I mean, there are a lot of relevant 04:46
21 things here, but I don't want to -- you know, I want 04:46
22 to just go directly to your question. Only minimum 04:46
23 stuff to help. 04:46
24 So let's go to paragraph 60. I don't want 04:46
25 to have to go to the analogy what Mr. Hochman is doing 04:46

1 in his own papers. That's fine. Let's just stick to 04:46
2 the fact -- to the topic. 04:46

3 04:46

4 They -- this PPID is not allowed to have any PII, and 04:46

5 it is encrypted. And on top of that, Google, when it 04:46

6 receives the PPID, it hashes the PPID further, just to 04:46

7 be certain because some publishers may not do their 04:46

8 job right. So it is trying to make sure this is not 04:47

9 now in a form that I can go back into the original 04:47

10 value of the PPID. 04:47

11 04:47

12 So the moment this thing has arrived now to 04:47

13 Google, Google doesn't know the PPID value that the 04:47

14 publisher has. It has an encrypted hashed PPID 04:47

15 string, and Google cannot go back to the PPID string 04:47

16 that the publisher has. 04:47

17 Q. So why can't I just send Google my PPID, how 04:47

18 to hash it with the same hash and match that up? Why 04:47

19 can't a user do that? 04:47

20 A. The user doesn't control his or her PPID. 04:47

21 It's the publisher that controls it. 04:48

22 04:48

23 And I don't see how this is relevant here 04:48

24 because the point is whether Google. 04:48

25 Q. If the publisher doesn't rotate their PPIDs, 04:48

26 I can just log in and get my PPID and submit that to 04:48

27 Google. 04:48

1	Isn't that correct?	04:48
2	A. Not really.	04:48
3	MR. ANSORGE: Objection --	04:48
4	BY MR. MAO:	04:48
5	Q. I'm sorry. Did you say "Not really"?	04:48
6	A. Yes. I'm saying no for the following	04:48
7	reason: Because the PPID that the publisher creates	04:48
8	for you is not the -- is not what you see when you log	04:48
9	in, in the sense that it has to stripe out things that	04:48
10	they are considered PP -- PIIs, and then it is hashing	04:48
11	it. So...	04:48
12	Q. So what, Professor? I'm giving the same	04:48
13	PPID that Google has collected without my assistance.	04:48
14	And now with my assistance, I'm giving the same PPID.	04:48
15	And are they not going through the same hash	04:48
16	algorithm?	04:49
17	A. So you are now talking about a hypothetical	04:49
18	where you are at -- a person that is a technical	04:49
19	person and goes and extracts. I'm asking what do	04:49
20	you -- in your mind now, goes and extracts the PPID	04:49
21	field that is sitting there in your browser; right?	04:49
22	Q. Yes. Yes.	04:49
23	A. And then you sent this to Google on your	04:49
24	own. You sent an mail to Google and say, "Here is my	04:49
25	PPID for this publisher"?	04:49

1	Q. Yes.	04:49
2	A. Is this what you are describing?	04:49
3	Q. Yes.	04:49
4	A. So --	04:49
5	Q. Can I locate my PPIDs in Biscotti and also	04:49
6	P logs using that method once I have extracted that ID	04:49
7	and sent it to Google to go through the hash?	04:49
8	MR. ANSORGE: Objection. Form. Compound	04:49
9	and incomplete hypothetical.	04:49
10	THE WITNESS: So I will answer as follows:	04:50
11	First of all, as a first matter here,	04:50
12	obviously this has nothing to do with whether Google	04:50
13	is or is not using PPIDs to join things or convert	04:50
14	things without the user knowing. You are providing	04:50
15	them your PPID.	04:50
16	Second, if the hash function at Google, not	04:50
17	at -- not your publishers hash function, but Google's	04:50
18	hash function, is rotating and changing, which is the	04:50
19	case, then, no, it's impossible for Google to tie	04:50
20	this to another PPID of yours because it has gone	04:50
21	potentially through a different hash function. So it	04:50
22	goes marked into a different value.	04:51
23	BY MR. MAO:	
24	Q. But let's assume that Google was required by	04:51
25	a preservation order, for example --	04:51

1	A. Mm-hm.	04:51
2	Q. -- right, to keep all of their hash	04:51
3	functions.	04:51
4	A. Stable you mean?	04:51
5	Q. Yes, stable.	04:51
6	A. So if you choose to send this and Google has	04:51
7	the same -- hash function from day X, right, then your	04:51
8	question is whether all the PPIDs that they originate	04:51
9	from your communication of a PPID, and going through	04:51
10	the same exact hash, because Google has not changed	04:51
11	the hash function, whether this would result to be the	04:51
12	same PPIDs in the end.	04:52
13	Is this the question?	04:52
14	Q. That is the question.	04:52
15	A. So I'm not trying to -- that's the question.	04:52
16	In this complete hypothetical, all these	04:52
17	assumptions that you have listed are correct, which I	04:52
18	can't see how they can be correct, to tell you the	04:52
19	truth -- actually, they are not correct at regular	04:52
20	real world. But you are saying some of these forcing	04:52
21	the system to change and be like that; right?	04:52
22	Q. Yes. A judge, for example.	04:52
23	A. Okay. So let me repeat all the constraints,	04:52
24	just to make sure I'm not forgetting anything.	04:52
25	I'm a technical person. I go to my	04:52

1 web browser on memory where it keeps cookies. I 04:52
2 extract the hash PPID that the first-party provider 04:53
3 sends to me. 04:53
4 Then I sent these PPID to Google myself. 04:53
5 And I do this again in a week. 04:53
6 In the meantime, during this one week, 04:53
7 somebody is forcing Google to doesn't -- don't touch 04:53
8 the hash such that if you gave the same input, you get 04:53
9 the same output. 04:53
10 And the question is whether the output of 04:53
11 that hash function would be the same during this 04:53
12 process? That's basically what you're asking? 04:53
13 Q. Yes. 04:53
14 A. So, I have -- I mean, again, I have not -- I 04:53
15 don't know if there are -- there could be other 04:53
16 nuances that I am not considering right now because 04:53
17 this is not a scenario for which I have been asked to 04:54
18 form an opinion about. 04:54
19 But if all the things have said are exactly 04:54
20 like that, then I'm trying to figure out if there is 04:54
21 something I might be missing. 04:54
22 You see, in this hypothetical, all the 04:54
23 fly -- I don't know if I should -- it's a complicated 04:54
24 system, Mr. Mao. You're asking me on the fly to come 04:54
25 up with a -- 04:54

1	Q. I've already taken all of your assumptions	04:54
2	that would result in the same PPID, and I can look at	04:54
3	the transactions of the same PPID data; right?	04:54
4	A. I'm trying to think if there are any more	04:55
5	assumption I have to make for my answer to be precise.	04:55
6	Because there are a lot of nuts and bolts on the	04:55
7	system.	04:55
8	Let me -- let me look into one more thing in	04:55
9	my report that might be helpful to see if there are	04:55
10	more assumptions that I may have to make, if I can	04:55
11	even tell you what it is, so here...	04:55
12	So the publisher also is not going to change	04:55
13	the PPID. That's another assumption. How do you know	04:55
14	that the publisher didn't change --	04:55
15	Q. We already -- we already eliminated that	04:55
16	assumption. Remember?	04:55
17	A. Okay.	04:55
18	Q. The publisher does not change the PPID,	04:55
19	yeah.	04:55
20	A. Okay.	04:55
21	Q. I've given you every trick you can pull.	04:55
22	A. I'm not -- I'm not trying to --	04:56
23	MR. ANSORGE: Objection. Argumentative.	04:56
24	MR. MAO: It's a joke. It's almost 5:00.	04:56
25	MR. ANSORGE: Objection. Assumes facts not	04:56

1	in evidence.	04:56
2	THE WITNESS: Another thing I do mention in	04:56
3	my report because it is possible is that different	04:56
4	publishers may provide the same hash value.	04:56
5	BY MR. MAO:	04:56
6	Q. Assume that you know the property, the	04:56
7	property number.	04:56
8	Okay?	04:56
9	Under -- for Google. Every Google Analytics	04:56
10	and Google Ads customer has their own number. Assume	04:56
11	that you know that number as well. They're going to	04:56
12	be unique. I can assure you.	04:56
13	A. I'm not sure how this should solve the	04:56
14	problem. If I have two publishers that they send me	04:56
15	the same hashed value; right?	04:56
16	Q. Different Google customer IDs.	04:56
17	A. Right.	04:56
18	But then what is going to happen in the end	04:56
19	is you may get a false positive because the PPID from	04:56
20	the other publisher is going to nevertheless be the	04:57
21	same. It's going to go through the hash -- the same	04:57
22	hash function. So when Google presents --	04:57
23	Q. Right. It's going to have a different	04:57
24	customer ID.	04:57
25	A. Okay.	04:57

1	Q. I'm asking about same customer ID because	04:57
2	it's the same publisher with the same hash algorithm.	04:57
3	A. No, no. I'm talking about --	04:57
4	Q. -- and PPID.	04:57
5	That's what?	04:57
6	A. I'm talking about a different publisher.	04:57
7	Q. That's not my hypothetical. You've changed	04:57
8	my hypothetical.	04:57
9	A. No, I'm not. I'm saying there could be a	04:57
10	different publisher that provides the same hash value	04:57
11	for the same user.	04:57
12	If you go to paragraph 135 where I'm talking	04:57
13	about --	04:57
14	Q. Right. And I'm saying that you have to look	04:57
15	it up with the same customer ID. Same customer ID,	04:57
16	same PPID.	04:57
17	A. So now you need to also involve -- how are	04:57
18	you going to do this? You need to also involve the	04:57
19	publishers and go and ask all possible publishers what	04:57
20	customer IDs they have --	04:58
21	Q. Do you know whether or not the customer	04:58
22	number is in the URL?	04:58
23	MR. ANSORGE: Objection. Vague.	04:58
24	THE WITNESS: We are in this hypothetical,	04:58
25	Mr. Mao. Maybe the customer IDs are the same in both	04:58

1 publishers. How do I know? Where -- 04:58
2 BY MR. MAO:
3 Q. Yeah. How do you know? Did you inspect the 04:58
4 systems? 04:58
5 A. You are asking me? 04:58
6 Q. Yeah, the expert. 04:58
7 MR. ANSORGE: Asked and answered many times 04:58
8 over now, Mr. Mao. 04:58
9 THE WITNESS: So I'm not ready to agree that 04:58
10 even in this hypothetical where the publisher we are 04:58
11 discussing is not changing my PPID. It's the same. I 04:58
12 am voluntarily sending it after it's been hashed by 04:58
13 the publisher with the same hash function to Google. 04:58
14 Google is forced to not utilize its usual 04:58
15 hash function and has to keep the hash function stable 04:58
16 and then maps it into a PPID, let's call it PPID 1. 04:59
17 And then a week after, I do the same thing 04:59
18 with the same publisher. Now this is going to be 04:59
19 PPID 2. My point is there could be another PPID 3 04:59
20 from a different publishers that ends up having the 04:59
21 same hash value. 04:59
22 You say maybe it's a different customer ID 04:59
23 on the two publishers for this user, but they could 04:59
24 also be the same. We are in a hypothetical land. 04:59
25 So my things, there are going to be multiple 04:59

1 PPIIDs. Perhaps there will be the same, yet they are 04:59
2 not going to fall into the case where all of this 04:59
3 correspond to the same publisher. That's all I'm 04:59
4 saying. 04:59

5 BY MR. MAO:

6 Q. Professor Psounis, have you asked -- have 04:59
7 you asked Google for a full list of all the search 04:59
8 tools available to search the logs and data sources at 04:59
9 issue in the case? 04:59

10 A. No, I have not. 04:59

11 MR. MAO: Mr. Ansorge, I pass the baton to 05:00
12 you. 05:00

13 MR. ANSORGE: Great. I'd like to take a 05:00
14 10-minute break. We can go off the record. 05:00

15 THE VIDEOGRAPHER: Going off the record. 05:00
16 The time is 5:00 p.m. 05:00

17 (Break taken in proceedings.) 05:00

18 THE VIDEOGRAPHER: Back on the record. The 05:12
19 time is 5:12 p.m. 05:12

20 EXAMINATION BY MR. ANSORGE 05:12

21 BY MR. ANSORGE: 05:12

22 Q. Dr. Psounis, do you recall Mr. Mao asking 05:12
23 you a number of questions about Exhibit 9 today? 05:12

24 A. Let me open up Exhibit 9. I mean, I do 05:13
25 recall discussing Exhibit 9, but just, you know, keep 05:13

1	it precise.	05:13
2	Q. Yes. Please do.	05:13
3	A. Yes. Yes.	05:13
4	Q. If you look at the first page of Exhibit 9,	05:13
5	do you see the sentence at the bottom, the last	05:13
6	sentence that says:	05:13
7	"For customers that use the	05:13
8	Google Analytics user ID, the user ID and	05:13
9	join beacons may be present in the	05:13
10	following logs."	05:13
11	Did I read that out correctly?	05:13
12	A. Yes.	05:13
13	Q. Is the Google Analytics user ID the same as	05:13
14	the GAIA ID?	05:13
15	A. No.	05:13
16	Q. Dr. Psounis, do you recall Mr. Mao asked you	05:13
17	a series of questions about Exhibit 2, which was an	05:13
18	order by Magistrate Judge Van Keulen?	05:14
19	Can you please pull that up?	05:14
20	A. I opened up Exhibit 2. It's on my .pdf	05:14
21	here.	05:14
22	Q. Please turn to number page 7 in	05:14
23	Exhibit No. 2, and this is 7 at the bottom, the	05:14
24	paginated No. 7. Let me know once you're there.	05:14
25	A. I am there.	05:14

1 Q. You see there's a numbered list and at the 05:14
2 top, the first number is "2"? If you look at the last 05:14
3 sentence, No. "2"? 05:14

4 A. Maybe I'm looking at the wrong part. 05:14

5 Number -- page No. 7 -- ah, 7 of the .pdf is -- 05:14
6 because there are multiple No. 7. Okay. 05:14

7 I'm sorry. There are -- now I'm looking at 05:14
8 page No. 7, which is 8 out of 58 on the .pdf. I was 05:15
9 looking at another page No. 7 which was page 19 out of 05:15
10 58, something like that. 05:15

11 Q. And is that the page with the judge's 05:15
12 signature at the bottom where it says 05:15
13 "Susan van Keulen, United States Magistrate Judge"? 05:15

14 A. Yes. 05:15

15 Q. So I'd like to direct your attention to the 05:15
16 top of the page. There's a numbered list and there's 05:15
17 No. 2. You see the last sentence in No. 2, it says: 05:15

18 "Google is not excluded from arguing 05:15
19 against the reliability of the three 05:15
20 incognito-detection bits in identifying 05:15
21 class members." 05:15

22 Do you see that? 05:15

23 A. Yes. 05:15

24 Q. In your opinion No. 8, are you describing 05:15
25 how reliable the maybeChromeincognito bit is for 05:15

1 identifying class members? 05:15
2 A. Yes. That's the essence of my opinion 8. 05:15
3 And I'm going to just read here. 05:16
4 Yes. I'm saying that Mr. Hochman's opinion 05:16
5 is incorrect, and I'm offering a bunch of false 05:16
6 positive cases and talking about the unreliability of 05:16
7 the incognito. 05:16
8 Q. And, Dr. Psounis, is your opinion 8 about 05:16
9 the maybeChromeincognito bit based on what logs the 05:16
10 bit is written to? 05:16
11 A. No. As the false positive cases, for 05:16
12 example, have -- are not related to the logs. 05:16
13 Q. And does opinion 8 of your report rely on 05:16
14 any specific log? 05:16
15 A. No. 05:16
16 Q. Did you rely on the fields provided to the 05:16
17 special master in forming any of the opinions in your 05:16
18 report? 05:17
19 A. Can you please repeat this question? 05:17
20 Q. Yes. 05:17
21 Did you rely on any fields provided to the 05:17
22 special master in forming any of the opinions in your 05:17
23 report? 05:17
24 A. No, I did not. 05:17
25 Q. Do you recall Mr. Mao asked you a series of 05:17

1 questions about Exhibit 5, which was a Sramek 05:17
2 declaration? 05:17

3 Could you please pull that up? 05:17

4 A. I'm looking at Exhibit 5. 05:17

5 Q. Please turn to paragraph 10. It's on 05:17
6 page 2. Let me know once you're there. 05:17

7 A. What page you said? 05:17

8 Q. It's page 2, numbered page 2 at the bottom. 05:17
9 It's paragraph 10. 05:18

10 A. Ah, yes, I'm there. 05:18

11 Q. Now, you see there's a block quote, and 05:18
12 under it there's a sentence. It says: 05:18

13 "I have confirmed with the Google 05:18
14 engineer that wrote the code for, and 05:18
15 implemented" -- and there's redacted -- 05:18
16 "log, that all of the joins in this log 05:18
17 are either from authenticated to 05:18
18 authenticated log sources, or from 05:18
19 unauthenticated to unauthenticated log 05:18
20 sources, but none are from unauthenticated 05:18
21 to authenticated log sources or vice 05:18
22 versa." 05:18

23 Did I read that correctly? 05:18

24 A. Yes. 05:18

25 Q. Does this statement in any way contradict or 05:18

1 undermine the opinions you offered in your report? 05:18
2 A. Not at all. Actually, my opinion related to 05:18
3 this sentence in my report explicitly says that Google 05:18
4 does not join unauthenticated with authenticated, 05:19
5 which is what this says. "But not from an 05:19
6 authenticated to unauthenticated log sources in 05:19
7 particular or vice versa." 05:19
8 Q. Dr. Psounis, do you recall Mr. Mao asked you 05:19
9 a series of questions about Exhibit 6? If you could 05:19
10 please pull that up. 05:19
11 A. I pulled it up. 05:19
12 Q. And you see at the top this document is 05:19
13 labeled "Incognito Events Labeling"? And then if you 05:19
14 look down three lines, do you see where it says 05:19
15 >Status: Proposed"? 05:19
16 A. Yes, I see that. 05:19
17 Q. Now, if you go further down, you see there's 05:19
18 four different approvers that are listed, four 05:19
19 different user names. 05:19
20 Do you see those? 05:19
21 A. Yes, I do. 05:19
22 Q. And you see that for three of them it states 05:20
23 "Approved" and for one it states "Pending"? You see 05:20
24 that? 05:20
25 A. Yes. 05:20

1 Q. Just based on this document before you, 05:20
2 would you expect this to indicate that something has 05:20
3 been implemented or does it look to you like this is 05:20
4 indicating that something is being proposed and has 05:20
5 yet to be approved? 05:20

6 MR. MAO: Objection. Leading. Calls for 05:20
7 speculation. 05:20

8 Go ahead. 05:20

9 THE WITNESS: This is clearly something that 05:20
10 it's at the proposed status, pending approval from 05:20
11 approver with user name "alihanlivdumlu." 05:20

12 BY MR. ANSORGE: 05:20

13 Q. Dr. Psounis, could you please turn to the 05:20
14 page ending with the Bates designation 797, and let me 05:20
15 know once you're there? 05:21

16 A. I am there. 05:21

17 Q. Second page of the document. 05:21

18 You see there's a comment on the side that 05:21
19 says "Commented (5)." It states that: 05:21

20 "Agree that extension provides more 05:21
21 flexibility in the future, especially 05:21
22 'incognito mode' is a concept across 05:21
23 app-level (example, Search, YouTube, GMM?) 05:21
24 and platform-level (example, Chrome and 05:21
25 Android.) 05:21

1	Do you see that?	05:21
2	A. I do.	05:21
3	Q. Dr. Psounis, what's your opinion about the	05:21
4	maybeChromeincognito bit, which is opinion 8 of your	05:21
5	expert report, related to the app level or the	05:21
6	platform level?	05:21
7	A. It is related to what is being referred to	05:21
8	here as platform level. It has to do with browsers,	05:21
9	Chrome, example.	05:21
10	Q. Now, Dr. Psounis, how many opinions are in	05:21
11	your expert report?	05:21
12	A. I remember that by heart; 13.	05:22
13	Q. And today Mr. Mao asked you about	05:22
14	opinions 1, 2, and 8.	05:22
15	Do you recall that?	05:22
16	A. Do you mind if I go through my executive	05:22
17	summary?	05:22
18	Actually, no. I'm going to go through the	05:22
19	table of contents, just to make sure that I'm	05:22
20	answering precisely.	05:22
21	We touched pieces related to my opinion 1,	05:22
22	2, and 8. I didn't end up giving justification for	05:22
23	either of these three opinions and do them full	05:23
24	justice. But, yes, he did ask me about 1, 2, and 8.	05:23
25	There was a lot of back and forth.	05:23

1 Q. And did Dr. -- did Mr. Mao ask you about any 05:23
2 other opinions in your expert report today? 05:23
3 A. Let me read the rest of that. 05:23
4 I don't remember Mr. Mao raising any other 05:23
5 opinion number to me. 05:23
6 I can for sure say that there was no 05:23
7 discussion about entropy, on fingerprinting, 05:23
8 identifying class members, either class 1 or class 2. 05:23
9 No discussion about certain devices or certain 05:23
10 accounts. No discussion about the three opinions 05:24
11 related to Mr. Schneier. 05:24
12 I brought up -- at some point Mr. Mao talked 05:24
13 about joining stuff, but he never asked me about my 05:24
14 opinion 3. I remember the discussion with the joint 05:24
15 beacon that was a controversy. 05:24
16 Q. Dr. Psounis, do you recall Mr. Mao asking 05:24
17 you a series of questions about PPID? 05:24
18 A. Yes. 05:24
19 Q. Do you recall he asked you about a scenario 05:24
20 in particular where a user pulls a PPID from their 05:24
21 browser and provides that to Google? Do you recall 05:24
22 that? 05:24
23 A. Can you repeat again the question? I'm 05:25
24 getting a little bit jet-lagged. 05:25
25 Q. Sure. It's been a long day and thank you 05:25

1 for your patience. 05:25

2 Do you recall he asked you about a scenario 05:25

3 in which a user would pull a PPID and then provide 05:25

4 that to Google? 05:25

5 A. Yes. 05:25

6 Q. You recall discussing that in detail with 05:25

7 Mr. Mao earlier today? 05:25

8 A. Yes. 05:25

9 Q. Now, if Google would look up data associated 05:25

10 with a specific PPID, how many publishers would that 05:25

11 data be associated with? 05:25

12 A. Well, obviously only the publisher that has 05:25

13 issued this PPID. I think in our example it was 05:25

14 New York Times, if I recall correctly. 05:25

15 Q. So unless a user had signed in to the 05:25

16 New York Times in that scenario, there wouldn't be any 05:25

17 data associated with a specific PPID of the 05:25

18 New York Times. 05:25

19 Is that correct? 05:25

20 A. Correct. 05:26

21 Q. Dr. Psounis, do you recall at various points 05:26

22 today you and Mr. Mao were discussing your IP and user 05:26

23 agent analysis? 05:26

24 Do you recall that? 05:26

25 A. I'm not sure. 05:26

1	MR. MAO: Objection. Beyond the scope of	05:26
2	the redirect. I actually -- of a cross. I actually	05:26
3	believe I did not ask him that.	05:26
4	BY MR. ANSORGE:	05:26
5	Q. Well, Dr. Psounis, do you recall testifying	05:26
6	about your appendices in which you describe IP address	05:26
7	and user agent analysis today?	05:26
8	A. Yes. We did discuss about that when I was	05:26
9	explaining how many IP addresses had a common GAIA	05:26
10	associated with them, how many UAs had a common GAIA	05:26
11	associated with them, yes.	05:26
12	Q. And is that analysis described in one of	05:27
13	your appendices, Dr. Psounis?	05:27
14	A. It is an appendix. Appendix F.	05:27
15	And as a matter of fact, I remember -- I	05:27
16	recall, but I got interrupted because of the legal	05:27
17	stuff you guys were dealing with, when I was going	05:27
18	very, very carefully through my document and I was	05:27
19	trying to point out to Mr. Mao every single place.	05:27
20	That was the next thing I was going say.	05:27
21	After the two paragraphs that I -- I was going to say	05:27
22	in appendix F it has the date.	05:27
23	Go ahead.	05:27
24	Q. And can you describe the analysis you	05:27
25	conducted in appendix F?	05:27

1 A. Of course I can. So, again, so the idea of 05:27
2 the analysis related to IP addresses and user agents 05:27
3 is the following: 05:27
4 There are some data that they have been 05:27
5 provided by the plaintiffs. And this data contained a 05:28
6 lot of records, hundreds of thousands of records -- or 05:28
7 144957, now that I have the appendix in front of me. 05:28
8 And what I was interested to see with 05:28
9 respect to IP addresses first was whether there are 05:28
10 IP addresses that they are served with multiple 05:28
11 plaintiffs. And I could do that because the 05:28
12 plaintiffs gave their GAIA IDs. 05:28
13 And there were actually three IP addresses 05:28
14 and they are listed in paragraph 2 of the appendix, 05:28
15 the IP addresses, that they are served -- they are 05:28
16 served by multiple plaintiffs. 05:28
17 And then -- sorry. 05:28
18 Through a lookup, too, we -- as you can see 05:29
19 in paragraphs 3, 4, and 5, it was apparent to me that 05:29
20 these three IP addresses, that they were shared by 05:29
21 multiple plaintiffs, were actually issued by, I think, 05:29
22 by -- and this is what this paragraph is showing. 05:29
23 Then next I was also interested to ask the 05:29
24 same question myself about the data that the 05:29
25 plaintiffs provided, about UAs, user agents. 05:29

1 So we did find -- if you can see the data -- 05:29
2 in paragraph 6, you can see that after the analysis of 05:29
3 the data, there were a thousand 257 distinct user 05:30
4 agents and out of those a thousand 257, 73 got 05:30
5 responded to multiple plaintiff -- multiple different 05:30
6 plaintiff GAIA IDs. So essentially the plaintiffs 05:30
7 were -- multiple plaintiffs were having the same UA. 05:30
8 For example, the first one, actually four 05:30
9 action Brown appears twice because he had two. Three, 05:30
10 but the second one, four, there's Brown, Byatt and 05:30
11 Castillo -- 05:30
12 THE COURT REPORTER: Okay. I'm sorry. 05:30
13 You're a little bit mumbling your words together. I'm 05:30
14 not getting exactly what you're saying. 05:30
15 Can you slow down and enunciate a little 05:30
16 bit, please? Thank you. 05:30
17 THE WITNESS: Okay. Sorry. 05:30
18 So what I am saying is that I conducted this 05:30
19 experiment, this -- because I wanted to see whether 05:30
20 and how many of the distinct UAs that can be found in 05:31
21 the data served by the plaintiffs and served among 05:31
22 multiple plaintiffs. Because this is directly 05:31
23 relevant to my opinion about the fact that UAs and IPs 05:31
24 are not unique or static. And, hence, they are 05:31
25 unreliable to do any kind of fingerprinting based on 05:31

1 that. 05:31

2 So I'm just pointing out to the fact that on 05:31

3 this table here that has "User Agent" column on the 05:31

4 left and "Corresponding GAIA IDs" on the right, there 05:31

5 are UAs that actually are set by almost all the 05:31

6 plaintiffs; for example, by four of them in this case. 05:31

7 This table is long because it's listing all 05:31

8 these UAs. 05:31

9 BY MR. ANSORGE: 05:31

10 Q. Dr. Psounis, what was your assignment in 05:32

11 this case? 05:32

12 MR. MAO: Objection. Document speaks for 05:32

13 itself. But okay, go ahead. 05:32

14 THE WITNESS: My assignment is described in 05:32

15 my report. Let me, just to be -- 05:32

16 MR. MAO: Please, we didn't ask you to read 05:32

17 it into the record. 05:32

18 THE WITNESS: No. I'm not going to read it. 05:32

19 I'm sorry. I'm not going to read the whole thing. 05:32

20 Again -- 05:32

21 MR. MAO: Okay. It is beyond -- a lot of 05:32

22 this stuff is beyond the scope of the 05:32

23 cross-examination. I'm kind of allowing it, Joey, 05:32

24 but, you know, I mean, come on. 05:32

25 THE WITNESS: I don't want to get into the 05:32

1 legal stuff between the two of you. All I'm saying -- 05:32
2 MR. MAO: Sure. Sure. 05:32
3 THE WITNESS: -- I'm trying to be very 05:32
4 accurate and precise in all the questions you have 05:32
5 asked me. I'm trying to do the same thing with 05:32
6 Mr. Ansorge. To me there is no difference. So I'm 05:32
7 just doing the same methodology. 05:32
8 BY MR. ANSORGE: 05:32
9 Q. And maybe we can speed it up for everybody. 05:32
10 Dr. Psounis, was it your assignment to rebut 05:32
11 specific opinions by Mr. Hochman and Mr. Schneier? 05:32
12 A. My assignment was to rebut -- to rebut 05:33
13 specific opinions in Mr. Hochman's report that they 05:33
14 are listed in the section called "Assignment," 05:33
15 paragraph 31. And also to rebut specific statements, 05:33
16 to be precise, in Schneier's report, and I also list 05:33
17 three statements which I have rebutted. 05:33
18 Q. And based on the documents that Mr. Mao 05:33
19 showed you today, do you want to revise any of the 05:33
20 opinions in your rebuttal report? 05:33
21 A. No. 05:33
22 Q. Dr. Psounis, are there any typos or errors 05:33
23 that you would like to remedy in your report? 05:33
24 Is there any specific number that you 05:33
25 believe should be changed after you have reviewed the 05:33

1 report in more detail in your preparation? 05:34

2 A. There are a few typos. A couple of them are 05:34

3 just words. One is actually a number, and I'm a 05:34

4 numbers guy, so I don't like to leave numbers that are 05:34

5 off. So if I have the opportunity, yeah, sure. 05:34

6 Q. Yeah. What is the number that you would 05:34

7 like to correct on the record? 05:34

8 A. So let me go to this so -- 05:34

9 MR. MAO: Can I stipulate that you will 05:34

10 allow him to just correct after the depo any 05:34

11 typographical errors? 05:34

12 MR. ANSORGE: I think that will take less 05:34

13 time than what he's about to do. 05:34

14 MR. MAO: Yeah. 05:34

15 MR. ANSORGE: As in what he's about to do 05:34

16 will take less time than -- 05:34

17 MR. MAO: Okay. All right. 05:34

18 THE WITNESS: So in the appendix E about 05:34

19 "Entropy, Entropy Bits and Fingerprinting: 05:34

20 Formal Exposition," what I tried really hard to 05:34

21 explain, what's going on with entropy and entropy bits 05:34

22 and its relationship to fingerprinting. To a lot of 05:34

23 people at Google, other experts, et cetera, because 05:35

24 I'm not sure they do, I gave a number of numerical 05:35

25 examples, simpler -- simple, small scale examples to 05:35

1 kind of convey the bunch of concepts that apparently 05:35
2 had -- or had -- what people don't quite grasp. 05:35
3 So in one of my numerical examples I do have 05:35
4 a numerical mistake -- numerical mistake -- not 05:35
5 mistake. I'm sorry. A typo. So -- and I'm trying to 05:35
6 find it. 05:35
7 Okay. Here we go. Page 1, 69, paragraph 05:35
8 37. So five lines behind the end of the -- five lines 05:35
9 from the bottom of the page, there is a -- there are 05:36
10 some brackets and four numbers in there. Bracket 31 05:36
11 over 64 comma zero comma 1 over 64 comma 1 over 64 05:36
12 bracket -- 05:36
13 THE COURT REPORTER: Excuse me. Pardon me. 05:36
14 You're going to have to start over. 05:36
15 THE WITNESS: I'm sorry. 05:36
16 Bracket 31 over 64 comma zero comma 1 over 05:36
17 64 comma 1 over 64 bracket closed. 05:36
18 The number 31 over 64 should have been 31 05:36
19 over 32 or 62 over 64. 05:36
20 And then on the fourth line of the bottom of 05:36
21 the page, there is a similar bracket with four 05:36
22 numbers. The second number in this bracket now, at 05:36
23 the very beginning actually of the line, is again 05:36
24 31 over 64 but it should have been similarly 05:36
25 31 over 32 or 62 over 64. 05:36

1	MR. ANSORGE: No further questions at this	05:36
2	time. We reserve the right for further questions	05:37
3	depending on Mr. Mao's redirect.	05:37
4	MR. MAO: I have no questions, although I'm	05:37
5	slightly tempted at just having him read his whole	05:37
6	report into the record. I'm kidding.	05:37
7	MR. ANSORGE: That would have been a better	05:37
8	use of the past seven hours, Mr. Mao.	05:37
9	MR. MAO: I don't know about that.	05:37
10	Dr. Psounis -- Professor, it was an honor.	05:37
11	I'm sorry that, you know, this is adversarial.	05:37
12	Thank you, Mr. Ansorge.	05:37
13	MR. ANSORGE: Thank you, Mr. Mao.	05:37
14	With that, we can go off the record.	05:37
15	THE VIDEOGRAPHER: This concludes today's	05:37
16	deposition of Dr. Konstantinos Psounis. We are off	05:37
17	the record at 5:37 p.m. The number of units -- media	05:37
18	units is seven and will be retained by Veritext.	05:37
19	Thank you.	05:37
20	THE COURT REPORTER: Thanks, Counsel.	05:39
21	Before we go, are we doing the rough today	05:39
22	and then the final by Monday or Wednesday?	05:39
23	MR. MAO: Rough today, yes. Rough today,	05:39
24	please.	05:39
25	THE COURT REPORTER: And then final by	05:39

1 REPORTER'S CERTIFICATE

2 ---oo---

3 STATE OF CALIFORNIA)
4) ss.
5 COUNTY OF YOLO)

6 I, KATY E. SCHMIDT, a Certified Shorthand
7 Reporter in and for the State of California, duly
commissioned and a disinterested person, certify:

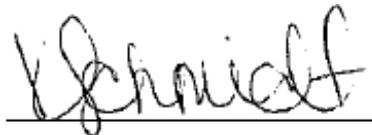
8 That the foregoing deposition was taken before
9 me at the time and place herein set forth;

10 That KONSTANTINOS PSOUNIS, Ph.D., the deponent
11 herein, was put on oath by me;

12 That the testimony of the witness and all
13 objections made at the time of the examination were
14 recorded stenographically by me to the best of my
15 ability and thereafter transcribed into typewriting;

16 That the foregoing deposition is a record of
17 the testimony of the examination.

18 IN WITNESS WHEREOF, I subscribe my name on this
19 22nd day of August, 2022.

20
21 

22 Katy E. Schmidt, RPR, RMR, CRR, CSR 13096
23 Certified Shorthand Reporter
24 in and for the
25 County of Sacramento,
State of California
Ref. No. 5344586 KES

1 MARK MAO, Esq.

2 mmao@bsfllp.com

3 August 22, 2022

4 RE: BROWN vs. GOOGLE LLC

5 AUGUST 19, 2022, KONSTANTINOS PSOUNIS, Ph.D., JOB NO. 5344586

6

7 The above-referenced transcript has been

8 completed by Veritext Legal Solutions and

9 review of the transcript is being handled as follows:

10 ___ Per CA State Code (CCP 2025.520 (a)-(e)) - Contact Veritext
11 to schedule a time to review the original transcript at
12 a Veritext office.

13 ___ Per CA State Code (CCP 2025.520 (a)-(e)) - Locked .PDF
14 Transcript - The witness should review the transcript and
15 make any necessary corrections on the errata pages included
16 below, notating the page and line number of the corrections.
17 The witness should then sign and date the errata and penalty
18 of perjury pages and return the completed pages to all
19 appearing counsel within the period of time determined at
20 the deposition or provided by the Code of Civil Procedure.

21 ___ Waiving the CA Code of Civil Procedure per Stipulation of
22 Counsel - Original transcript to be released for signature
23 as determined at the deposition.

24 ___ Signature Waived - Reading & Signature was waived at the
25 time of the deposition.

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1 __ Federal R&S Requested (FRCP 30(e)(1)(B)) - Locked .PDF
2 Transcript - The witness should review the transcript and
3 make any necessary corrections on the errata pages included
4 below, notating the page and line number of the corrections.
5 The witness should then sign and date the errata and penalty
6 of perjury pages and return the completed pages to all
7 appearing counsel within the period of time determined at
8 the deposition or provided by the Federal Rules.
9 xx Federal R&S Not Requested - Reading & Signature was not
10 requested before the completion of the deposition.

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CONFIDENTIAL

[& - 31]

&	12 68:25 120 183:6,16 122 182:24 183:18 129 7:1 13 69:10 121:3 170:15 196:25 236:12 1300 4:17 1301 3:23 13096 1:22 248:22 135 227:12 137 7:3 144957 240:7 15 39:12 151 7:4 156 7:7 158 7:10 16 33:19 34:5 36:12,13,16 1695 170:5,6 17 61:21,21 84:4 84:13,13,17,23 17973 248:21 18 41:15 18th 107:20,21 19 1:17 8:2 59:9 59:13,25 231:9 249:5 191 24:4 19th 2:13 8:6 1:30 140:3	81:4 83:25 84:2 84:6 102:7 104:7,16 112:8 112:24 132:11 150:18,22 159:8 159:18 162:9,14 174:23 228:19 230:17,20,23 231:2,3,17,17 233:6,8,8 236:14 236:22,24 237:8 240:14 20 6:14,25 8:20 13:25 56:6 82:23 200 149:7 173:22 20005 4:18 2000s 114:14 201 3:8 2016 157:14 2017 59:19,23 2019 152:12 202.538.8000 4:19 2021 15:23 16:5 16:6 18:24 19:1 68:25 2022 1:17 2:13 6:14,25 8:2,6 15:24 16:6 19:1 37:11,12,13,23 41:13 50:18,19 50:22 80:10 82:1 104:9 107:5,21 248:19 249:3,5 2025.520 249:10 249:13	203 23:25 207 26:20 42:6 20th 37:17,23 40:19 41:13 50:17,19,21,22 107:5 212.257.8482 4:9 212.729.2044 3:25 22 6:4 249:3 229 5:5 22c947 29:4 22nd 248:19 23 37:3 24 60:7,14,19 61:5,17 63:4,5 25 20:3 250 1:25 257 241:3,4 28 59:9 29 6:6 59:12,13
1	3	3	3
1 1:25 6:4 8:15 22:17,18,21 31:12 33:19 37:10 43:14 44:5 45:2,13 61:22 70:14 71:7 88:11,12,17 88:19,22 127:10 127:17 132:9 150:15 159:8,18 162:14 163:7 164:4 174:23 186:15 207:21 228:16 236:14 236:21,24 237:8 245:7,11,11,16 245:17 250:1 10 5:4 7:10 158:16,19,20 182:21 229:14 233:5,9 10016-7416 4:8 10019 3:24 101 6:12 106 6:22 10s 171:5,5,5 112 4:7	2	2	2
	2	2	2
	2	2	2

CONFIDENTIAL

[31st - academia]

31st 104:9	59 219:16	702 198:17	190:17 229:23
32 245:19,25	5:39 247:6	72 153:5,19	229:24,25 230:4
32nd 3:23	6	73 241:4	900 4:17
33 36:22	6 7:1 31:10,11	7798 131:8	90272 12:5
33602 3:9	69:16 129:23	797 235:14	92 59:10,14,14
37 245:8	130:3,5,7 133:10	7th 4:7 39:21	59:15
4	133:24 134:20	41:15 51:7	94104 3:18
4 6:16 68:17,21	134:22 135:8	52:13 53:11	97 135:23
68:22,24 69:3	136:8 137:1	80:4 81:1,23	a
73:23,24 103:24	174:23 234:9	82:1,7,7 85:25	a.m. 2:14 8:2,5
104:4 112:13	241:2	86:4 103:14,16	83:8,11
174:23 211:19	60 219:24	8	abbreviate 34:4
240:19	61 152:12	8 7:4 24:6 34:17	ability 200:5
40 33:12	62 245:19,25	39:11,13 45:6,13	248:15
415.293.6800	63 156:8	49:5,7,10,21,23	able 13:9 20:25
3:18	64 245:11,11,11	70:10,13,14	21:5 25:14
41st 3:17	245:16,17,17,18	105:18 124:21	48:22 86:13
44 3:17	245:19,24,25	151:7,11 155:10	113:16 116:4
4:00 197:18	68 6:16	231:8,24 232:2,8	136:10 144:13
4:20 1:10 2:10	69 245:7	232:13 236:4,14	145:25 157:2
5	7	236:22,24	169:22 170:1
5 6:22 8:20 69:7	7 7:3 33:6 37:11	80 181:2 182:2	171:13 174:24
69:16 73:17	37:12,13 51:8	813.223.0931 3:9	178:5 184:8
106:14,15,17,22	80:10 81:25	82 182:5,8	185:22 201:3
106:24 107:1,3	84:19 85:2	86 211:24	202:8,8
110:11,13,20	103:2,21 107:16	87 212:1,7,8	absence 115:9
113:15 118:25	107:22,24 108:6	88 212:16 213:10	123:17 124:22
123:1 124:7	110:12,21	216:14	125:13,18
131:16 152:12	111:21 118:2	9	126:14 216:23
152:14 174:23	119:3 122:22	9 7:7 34:17,21,22	absolutely 62:19
233:1,4 235:19	124:3 137:18,22	36:12,13 155:25	62:23 82:17
240:19	137:23 143:12	156:2,19,21	147:12 148:4
50 32:15	144:16 145:20	159:4,5,8,9,11	168:22 179:9
5344586 1:23	230:22,23,24	160:24 161:11	195:20 203:12
248:25 249:5	231:5,5,6,8,9	162:5,22 163:10	abstract 99:22
58 84:23 231:8	700 3:8	164:10,25	academia 100:11
231:10		165:18 189:4	

CONFIDENTIAL

[academic - analysis]

academic 17:9	actual 172:1	agency 15:22	159:12 163:13
accepted 95:5	180:23 181:18	agent 238:23	166:7 178:13,15
access 20:25	190:5 196:21	239:7 242:3	219:12 235:8
21:10,17,20 22:1	add 23:12 47:19	agents 182:19,21	239:23 242:13
52:20 100:14,15	130:10	182:21 183:2	al 1:4 2:4 8:18
106:9 110:25	addition 79:15	240:2,25 241:4	algorithm
114:11,16,19,21	94:15 167:4	ago 47:5 64:9	221:16 227:2
114:24 115:3,6	additional 25:19	101:14 105:6,6	alihanlivdumlu
115:10,13 120:9	51:12 75:16	114:13 176:24	235:11
120:13,14 121:3	79:15 80:2 81:5	agree 8:13 42:19	alison 3:14 9:15
121:6,19 122:1	81:13,16,20 85:7	45:16 49:15,17	alleged 127:23
199:11	102:6 105:11,16	88:25 92:13	allow 10:20
accessed 26:2	121:17,20,23,24	94:1 95:23	129:19 244:10
accessible	122:23 123:3	101:7 110:15	allowed 52:23
136:14	124:17 135:5	125:16 132:15	63:16 152:4
accessing 148:13	141:3 143:9	133:7 136:2,2	174:4 220:4
154:15,17	148:9 190:15	156:17 157:5	allowing 242:23
account 89:16	200:6 201:7	181:21 200:19	allows 198:17
127:25 204:20	202:8	200:20 202:10	alluding 77:6
208:17	address 11:24	206:13 207:7	ambiguous
accounts 237:10	194:4 239:6	213:11,13	66:23 68:6 89:5
accuracy 43:22	addresses 54:7	217:11 218:11	106:6 122:8
95:17,24	183:11,13,14,16	228:9 235:20	134:20 138:18
accurate 16:25	202:17,18,19,24	agreeing 200:3	170:13
46:22 68:13	203:3,6,7,13	agreement 200:8	amount 195:5
73:2 80:4 82:12	239:9 240:2,9,10	200:10	analogy 219:25
94:12 113:17	240:13,15,20	ah 24:6 33:9	analysis 21:25
171:13 181:25	adjourned 247:6	51:23 69:3	26:19 35:17
243:4	adopting 6:17	73:21 84:6	42:19 51:2,12
accurately 43:10	ads 226:10	106:19 107:21	53:2,3,23 54:6
117:9	advance 9:12	231:5 233:10	60:3,12 61:13
acquire 185:13	10:25 26:9	ahead 22:24	64:22,24 65:1
acronym 15:18	adversarial	24:8 30:11,11,13	74:20,21 79:17
acting 157:17	246:11	32:22,24 33:10	93:12 102:24
action 9:3 241:9	advisor 57:1	33:14,16,25	103:16,21
actions 214:8	affiliations 9:8	59:16 62:9 69:5	128:25 140:12
actor 157:16,16	afternoon 110:8	69:22 74:14	179:14 238:23
157:19		102:12 136:12	239:7,12,24

CONFIDENTIAL

[analysis - answer]

240:2 241:2	46:18 47:9,12,15	147:23 152:8	217:16 219:9
analytics 90:19	48:17 49:1	153:10 154:2,12	221:3 222:8
156:8 159:23	51:17 52:4	156:20 157:9	225:23,25
161:22 163:22	53:12 55:1	158:6 160:11	227:23 228:7
163:22 164:15	57:15,18 61:11	162:21,24 163:9	229:11,13,20,21
164:15 165:9,9	63:24 65:2,7,20	164:9,24 165:17	235:12 239:4
167:5 168:10,22	66:7,19,22 67:16	165:21,24 166:2	242:9 243:6,8
169:9,19,23	68:5,8 69:19	166:12 167:16	244:12,15 246:1
189:8,23 190:10	72:21 74:6 75:9	168:14,24 169:3	246:7,12,13
190:22 191:3,5	76:2,14,17,21	169:10,25	ansorge's 14:18
191:21,24 226:9	79:2,19 80:13,17	170:12 172:7	answer 5:9 16:2
230:8,13	82:2,13,17,19,22	173:14,20,23	16:24,25 17:22
analyze 74:3	83:14 85:3,19	174:8,14,18	27:19 30:5
198:18	86:11 87:21	175:11,15 176:4	44:10 55:7
analyzed 60:14	88:16 89:4	176:10,12	57:19 64:2
186:8	91:13,15 92:6	177:12 178:11	67:20 68:13
analyzing	93:1,15 95:19,21	179:2,12,16	73:2 74:12,25
105:16 121:11	97:10 98:1 99:1	181:11 184:12	85:20 90:16
183:8	99:10 103:7	184:18,22,23	93:17 98:9
anderson 3:14	105:9 106:6	185:2,16,25	108:25 109:5
9:15	108:17 109:8	186:7,14 187:15	113:17 114:10
android 235:25	110:19 111:16	188:4,13,23	114:18 117:9
angeles 2:15 8:1	112:23 113:14	189:9,20,24	121:8,9 131:23
12:6	114:8 115:1	190:11 191:6	133:3 135:12
ansorge 4:15 5:5	116:14,17 117:5	192:19,23 193:4	136:5,19 143:20
9:24,24 11:18	118:8,18,24	193:8,13,14,17	143:22 145:9,10
13:7,9 14:12,22	119:14 120:10	193:18,20	145:10 146:10
14:23 15:4,11	120:15 122:8,25	194:23,24	157:12 159:19
16:14 17:19	124:6 125:8,23	195:25 196:7,16	159:25 166:7
18:13,21 19:8,25	126:24 127:16	196:17 197:7,8	168:17,23 169:2
21:3,19 22:11	128:13 129:6	197:11,16,24	171:19 188:11
27:5,18 28:15	130:7 132:16	198:24,25 199:3	189:11,18,18,19
31:13 32:8,12,13	133:1,9 134:19	199:5,23 200:2,8	190:14 193:4
32:22 33:14,17	135:7 136:4,25	200:9 201:5	194:10 203:17
34:1 37:25 40:1	137:20 138:18	202:2,11,20	208:7 210:8,12
41:3 42:3,22	139:3,19 143:10	205:14 206:15	210:14,16,21,24
43:13 44:10,15	144:15 145:19	207:11 209:17	211:11,12,16
44:19 45:19	146:6 147:16,20	210:23 216:6,10	222:10 225:5

CONFIDENTIAL

[answered - asked]

answered	22:12 49:2 52:4 57:20 67:17 68:6 74:7 74:17 75:9 76:14 82:3,16 106:7,9 108:24 116:17 118:9 119:1,15 120:10 125:9,24 143:11 174:19,20 175:12 176:5,23 179:16 181:12 188:6 189:10,25 190:12,13 196:8 210:9 216:11 228:7	apparent	240:19 apparently	113:5 193:9 245:1	approved	234:23 235:5	169:10 170:13 173:23 174:9
answering	54:20 61:12 64:7 91:23 113:23 136:5 195:1 215:19 236:20	appeared	2:18 3:4,11 4:4,13 69:18	appearances	9:6 3:1 4:1	approver	235:11 175:12 178:12
answers	10:20 53:8 57:12 63:25 175:18 176:16 208:5 210:11	appearing	249:19 250:7	appears	103:13 200:2 241:9	approvers	179:2 181:11 186:16 189:25
anybody	9:12 12:10 63:17 89:19 176:9 184:4 186:18	appendices	183:21 239:6,13	architect	93:20 114:17 120:5,5	architectural	191:6 209:18 210:23 216:11
anyway	20:8	appendix	21:24 27:10,21 49:5,7	architecture	90:24 94:10 96:7	architected	225:23 arguments
anyways	140:2		49:10,21,23 50:12 54:5,8,10	area	91:10 93:20 94:18 95:12	arrive	186:23 166:21
apologies	136:15		180:20 182:8 183:22 239:14	areas	96:3 98:16 111:13 113:22	arrived	198:20 220:11
apologize	9:12 10:24,25 14:13 86:12 109:12	applied	239:14,22,25 240:7,14 244:18	area	115:20,21,23,25 116:8 151:1,4	article	50:6
app	235:23 236:5	applies	192:25 198:19	argue	12:6 96:25 100:25 136:8	ascertain	114:22 114:25 115:5
		apply	165:12 97:24	areas	136:8 151:1,4	aside	217:4
			184:14	argue	169:15 20:7 32:23 33:14,15,22	asked	16:19,20
		appreciate	52:12	arguing	129:4 139:17 231:18		
		appropriate	57:18 93:16	argument	129:4 139:17 231:18		
			111:17 133:1	argumentative	129:4 139:17 231:18		
			76:24 83:1	apply	108:23 109:2 41:4 42:3,23		
			174:12 201:8,11	argumentative	116:17 117:9 47:9 48:17 55:1		
		approval	142:4 235:10	approver	118:9,25 119:14 57:18 93:16		
				approver	120:10,14 125:5 111:17 133:1		
				approver	125:8,21,23 133:1		
				approver	135:7 137:20 138:19 143:11		
				approver	144:15 147:16 160:11 168:14		
				approver	162:8 173:9		

CONFIDENTIAL

[asked - back]

174:18 175:11 176:4,12,18 179:16 181:12 185:5,10 188:6 189:9,25 190:11 194:13,15 196:7 197:1 199:9 201:15,18 203:5 203:7 216:11 224:17 228:7 229:6,7 230:16 232:25 234:8 236:13 237:13 237:19 238:2 243:5 asking 29:9 31:19 33:18 34:1,7 36:6 38:3 41:9 42:5 44:9 52:14 54:14,15 57:9,13,20 67:8 71:9 72:2 74:3 76:8 93:10 96:22 97:13 102:13 107:7 113:18 118:5,14 120:13 128:17 129:1 155:2 160:5,9 161:9,14 162:7,12,16 167:10 168:1 174:25 185:4,12 192:11 194:1 196:20 198:1 204:17 208:2,3 210:5 211:8 212:7 221:19 224:12,24 227:1	228:5 229:22 237:16 asks 164:25 194:4 aspect 139:24 193:24 aspects 94:6 211:6 assertion 39:8 assess 48:15 assignment 18:17 242:10,14 243:10,12,14 assist 13:8 187:4 assistance 149:14 221:13 221:14 assisted 178:7 179:1 181:6 187:12 188:2 195:19 196:12 associate 214:22 associated 28:22 28:24 89:16 183:12 208:9 213:24 214:20 238:9,11,17 239:10,11 assume 27:5 38:18 62:12 72:1 77:10 86:16 98:12 103:2 114:12 138:2 152:16 166:18,19 202:23 222:24 226:6,10	assumes 19:8 137:1 156:21 162:24 163:10 164:10,25 165:18 188:5 202:20 225:25 assuming 69:19 78:19 135:8 assumption 96:20 225:5,13 225:16 assumptions 223:17 225:1,10 assurance 174:13,21 175:15 assure 75:15 160:8 211:5 226:12 assured 175:5 atruong 4:10 attempt 209:12 attention 182:11 191:15 231:15 attest 111:6 attorney 9:9 15:13 77:15 99:10 157:19 189:17 199:23 attorneys 30:23 78:10 audio 8:12 august 1:17 2:13 8:2,6 107:20,21 248:19 249:3,5 authenticated 192:8 203:10,16 204:1 205:12	206:8 207:8 208:1,4 209:1 233:17,18,21 234:4,6 automated 157:25 available 72:19 103:1,14,19 229:8 avenue 3:23 4:7 avoiding 144:17 aware 30:7,10 66:5,13,16 68:2 71:10 77:15 130:15 139:13 144:3 198:2 awkward 10:21 b b 60:20,24 72:3 87:12 89:21 105:22 250:1 b1 27:10 28:1 back 41:1 43:19 43:21 48:10 52:14 56:11,16 56:16 59:5,8 68:19 72:14 73:23 80:22,23 83:10,25 84:2 91:22 101:10 103:23 109:16 110:5,8 112:8 127:5,6,10 135:15 136:11 150:11 157:14 159:4 166:22 171:24 177:3
---	--	--	---

[back - bit]

180:16,17	basis	23:8,14 48:8,12 49:17 94:24 96:16 97:4,8,13 194:19 195:7	behest	193:21 believe 28:20 30:15 36:21 42:10 43:16,24 45:5 75:20,25	big	43:3 58:7 71:23 154:5
184:13 189:4	bates	24:19 25:2 42:6 158:22 235:14		79:14,22 80:1,2 81:17 86:18 92:18 93:6	biscotti	28:22,25 42:9 132:12 133:18 156:18
193:6 196:24	baton	229:11		95:16 102:8,25		156:24 159:14
199:19 201:24	beacon	159:17 161:15,17 162:13 167:25 170:2 191:4 237:15		105:15 106:8 121:8 126:19 137:12 152:2,3 153:8,25 154:8 154:13 155:10		159:23 160:6 161:3,4 162:10 162:11,15 163:18,20 164:14,17 165:7
216:13 217:10	beacons	159:7 161:25 162:2 164:3,6 167:21 168:8,9,21 169:6 169:8,12,14,14 169:16,16,17,19 169:23 170:4,10 170:22 171:15 171:17,20,23 189:7,22 190:9,9 190:21,23,23,23 190:24 191:20 191:23 192:1,2 192:18 230:9		168:4 187:7 198:12 200:16 201:12 211:19 212:21,22 239:3 243:25		165:14 166:21 166:25 167:1,5 167:14 182:4 212:18,25 213:4 213:5,14,15 214:2 216:16,17 216:19,19 222:5
220:9,14 229:18	bell	30:5 102:8			biscottis	161:16 216:4,9
236:25	belong	154:6 173:4			bit	10:24 19:3 26:17 38:17
background	belongs	207:1				45:7 60:25 61:5 61:7,10 64:2 68:20 72:13 81:3 89:13
12:2 34:11	bent	194:8				102:18 105:23
backgrounds	best	10:19 14:21 15:24 16:17 18:23 20:24 24:13 28:13				105:25 106:4 112:7 123:12 124:20 125:2,17 126:16 127:19
194:8	bearing	105:17				128:4 135:24
bad	bedroom	11:24				136:7,15 147:25
95:21	began	182:15				151:14 158:17
146:19 157:16	beginning	9:9 34:4 38:22				210:3 231:25
157:16,19		60:16 162:9,14 245:23				
badgering	behalf	1:5 2:5 10:4				
176:13						
base						
140:7						
based						
47:21						
62:15 63:6						
64:19 65:24						
79:25 94:13						
95:6,12 103:2,12						
113:4 115:22						
121:12 123:17						
124:22 129:20						
178:2 214:16						
215:21 232:9						
235:1 241:25						
243:18						
basic						
213:9						
basically						
25:4						
30:16 64:9 91:5						
112:19 123:17						
124:21 165:13						
183:1 210:15						
219:2 224:12						
basing						
96:1						

CONFIDENTIAL

[bit - case]

232:9,10 236:4	82:22,25 83:1,3	203:20 204:4,5,6	248:24
237:24 241:13	83:9,15 109:6,15	204:14,21 205:4	call 45:1 71:15
241:16	133:11 140:2	205:18,24 206:4	77:14 110:1
bits 35:5 39:3,5	142:2 147:24	207:13 208:9,16	170:18 209:8
60:9 104:11	148:1,3 150:6,10	213:4 214:9	210:7 228:16
108:4,4,8,12	199:14,18,22	215:24,25	called 2:21 10:9
110:18 113:9,10	229:14,17	217:13 218:19	38:19 60:20
113:21 114:5	breaks 32:10	218:20,22	90:11,18 124:22
116:6,13 117:4	brett 7:9	bsf 9:17	126:15 141:11
118:3,6,22 119:2	brief 83:16	bsflp.com 3:19	157:15 243:14
120:2,3 122:23	bring 12:14	249:2	calls 37:25 61:16
123:3,9 124:17	77:25 123:10	build 94:16	74:8 108:17
124:18 231:20	182:11	218:21 219:1	117:6 118:9
244:19,21	bringing 191:14	building 157:21	122:9 132:17,17
block 157:21	brings 171:24	212:15 219:17	157:10 165:21
219:17 233:11	broad 48:7	built 114:13	185:25 202:21
body 10:22	brought 12:18	bullet 31:12	217:17 235:6
84:15 116:25	64:12 237:12	bulletproof	camera 8:9
boies 3:12 9:13	brown 1:4 2:4	31:12	caps 74:2
bold 161:25	3:3 8:18 69:8	bullets 34:25	careful 111:20
bolts 225:6	241:9,10 249:4	58:16	140:12
book 50:6	browse 30:3	bunch 207:4	carefully 33:2
bottom 31:10	browser 106:23	232:5 245:1	61:3 239:18
142:9 159:17	111:8,24 119:5	burch 3:15 9:16	carl 4:16 10:1
230:5,23 231:12	119:22 123:7,22	burn 57:11	carry 137:13
233:8 245:9,20	123:24 125:12	burned 195:5	case 1:9 2:9 8:20
bounds 195:20	126:6 154:16	burning 57:21	14:10,20 16:11
box 23:1	205:7,7 208:15	business 20:2	16:19 17:10,17
bracket 245:10	221:21 224:1	byatt 241:10	18:18 19:12,13
245:12,16,17,21	237:21	c	20:15,16 25:1
245:22	browsers 236:8	c 7:8 65:22	28:1 30:8 55:10
brackets 245:10	browsing 7:6	ca 249:10,13,21	56:12 63:14,17
break 12:24	90:5,8 127:24	calhoun 4:3 10:4	66:3,6,14,17
15:17 19:2,10	150:24 151:22	19:6,15,17	67:4,15 68:3,11
32:5,14 33:22	152:2 153:2,16	california 1:2	69:8 72:25 73:6
72:23 74:10	154:9,18 155:13	2:2,15,17 3:18	75:21 78:9
75:11 76:23	155:17,18,20	8:1,20 248:2,6	83:20 86:14
80:15,16 82:15	191:12 203:10		88:3,8 92:3

CONFIDENTIAL

[case - code]

108:16,22 112:3 122:14 125:1 127:22 128:10 128:12 132:13 132:14,21 133:6 133:16,18 134:17 140:19 142:9 144:7 147:12 149:4,4,5 157:12 176:22 177:25 180:19 180:21 203:12 211:6,25 214:12 222:19 229:2,9 242:6,11 cases 90:11 187:1,5 232:6,11 castillo 241:11 categorically 197:3 categories 25:12 categorization 27:2,14 cause 121:25 causing 146:17 caution 176:6 ccp 249:10,13 cease 200:19 202:4 certain 82:8 103:20 128:25 156:19 171:23 206:17 215:4 220:7 237:9,9 certainty 86:5 103:17 certificate 248:1	certified 2:16 10:5 248:5,22 certify 248:7 cetera 50:8,9 62:23,23 79:24 79:24 87:1 116:10 244:23 challenge 132:20 challenging 95:17 chance 72:22 75:11 150:23 change 38:11 39:13 60:18 76:4 105:17 121:18,25 223:21 225:12 225:14,18 changed 223:10 227:7 243:25 changes 96:13 96:14 changing 114:15 222:18 228:11 characteristics 155:18 characterization 44:13 177:23 188:15 characterize 181:24 charge 56:24,24 57:3 chase 219:20 chasom 1:4 2:4 8:18 chat 83:16	check 36:11 41:17 150:1 158:24 175:2 188:1 checked 149:23 choose 155:19 200:22 223:6 chrome 45:7 59:18,18 60:25 235:24 236:9 chromeincogni... 62:20 chung 168:4,6 171:3 190:18 citation 152:1,12 citations 182:20 cite 16:23 98:22 151:5 154:13 cited 123:24 151:19,23 153:4 153:4,18,21 180:24 cites 155:12 citing 21:23 98:23 99:24,25 152:16 civil 249:20,21 clarification 73:12 204:8 clarified 172:25 clarifies 78:21 clarify 11:5 79:17 124:10 125:25 134:4 clarifying 128:16 clash 165:25	class 48:21 231:21 232:1 237:8,8,8 clear 33:17 64:20 76:18 77:4 147:4 195:9 198:11 203:11 205:15 210:25 clearly 36:19 44:21 47:5 102:25 107:12 128:20 235:9 click 152:4,5,6,8 152:11 155:1 clicking 152:17 client 123:18,25 124:4,13,22,24 125:13,18 126:14 132:5 133:8 134:16 139:12 close 12:7 197:19 213:9 closed 245:17 coach 148:3 165:23 168:19 code 12:5 27:22 61:9 62:17 63:8 63:17,20,21 64:5 64:8,11,13,16,16 64:19,21,23 67:12 94:21 95:2 100:16 105:8 214:23 233:14 249:10 249:13,20,21
--	--	---	---

CONFIDENTIAL

[collaborating - considered]

collaborating	32:13 174:2	common	32:13 183:2 190:22	component	190:22	241:18
collaborators	174:1,11		209:6 239:9,10	compound	17:19	conference
colleague	179:8		223:9	19:8 28:15 41:4	17:10	conferences
colleagues	9:20		223:9	42:4 45:19	17:13 95:6,8	
collected	221:13		223:9	46:18 47:12	confident	62:19
collection	159:23 161:22		176:7 184:15,21	48:18 51:18	121:9,10	confidential
colon	8:20		190:7 195:2	74:6 76:2 79:19	1:13	confine
column	71:7,8 73:17 242:3		196:18 197:2	89:4 93:15 99:2	128:25	confirm
columns	71:7,23		198:2,6 201:11	105:9 114:9	22:24	
com	154:23 155:1		202:5	118:10,25	30:18 108:3	confirmed
come	91:22 128:18 209:20 224:24 242:24		companies	127:16 129:7	233:13	confirms
comes	23:11 25:15 53:16,17 57:21 79:23 111:2 125:1 156:25 163:21 165:3,8 211:22 218:4		96:15 140:9 144:4	205:14 217:16	22:22	confuse
comfortable	170:23 171:22		company	222:8	89:19	confusing
coming	190:17		146:22 154:5	compromised	12:1	connect
comma	245:11 245:11,11,16,16 245:17		compel	155:23	21:11	connected
commencing	2:14		competence	computer	212:19 214:3	connection
comment	235:18		196:13	106:3 176:2 194:22	8:9	
commented	235:19		compiling	195:24 196:5	59:20	conroy
commissioned	248:7		49:20	computers	4:5 10:4	consider
			complaint	100:17	48:24	
			128:21 129:10	computing	57:22 94:11	
			complete	55:13	174:10	
			24:11 63:10 75:17	concept	consideration	
			90:9,17 100:14	235:22	37:22 41:14	
			100:15 146:23	concepts	74:22 99:18,25	
			223:16	concession	12:8	
			completed	48:6	24:3,6 26:16	
			44:20 249:8,18 250:6	conclusion	40:11 41:15	
			completely	31:11 31:12 38:1 74:8	49:3,5,11,16	
			13:4 140:7 209:11	108:18 132:18	58:3 72:20 74:5	
			completion	conclusions	75:1,8 77:8 78:3	
			250:10	33:2 75:21	102:23 103:15	
			complex	87:19,19 198:14	103:20 131:25	
			101:1 111:19 190:25	198:20	139:21 203:16	
			complicated	conduct	215:15 221:10	
			147:21 218:21	146:21		
			224:23	conducted		
				8:8 8:21 56:9 74:20		
				74:21 239:25		

CONFIDENTIAL

[considering - counted]

considering	continue	8:12	correspond
142:22 224:16	131:9	cookies	183:14,17,18
consist	continues	132:8	229:3
71:12,13	continuing	182:4 224:1	corresponding
71:18	209:19	copies	42:9 136:18
consistent	contracts	24:1,2	160:23 210:2
154:10	206:20	12:17 13:1	211:18 219:14
consolidated	contradict	13:7,11 23:23	242:4
26:19	233:25	30:2 84:8,8	corresponds
constraints	contradictory	128:1	58:9 208:21
223:23	99:20	correct	cost
cont	contrary	17:7,8	184:8,10
4:1	97:23	18:5,25 19:18,19	185:13,22 186:5
contact	control	21:18,22 31:1,2	counsel
249:10	220:19	33:20 36:13	8:17 9:7
contain	controls	37:3 44:13 46:3	10:13 11:15
23:4,7	controversy	46:17 47:1 52:3	13:18 14:2,8
105:12 108:5,12	49:11 237:15	53:25 54:18	18:12 20:7
114:5 116:12	conversation	79:1,18 80:11	24:18 25:6 26:6
159:7 161:2,15	138:6,9	81:6 85:18	28:13 41:3
162:1,6,19 164:2	conversations	87:20 92:5	51:21 52:14
164:22 165:15	194:12	104:24,25 113:6	54:25 55:6,8,25
166:10 167:13	conversion	115:18 119:13	63:3,16 72:22
167:21 181:14	209:16,20,25	121:21,22 122:2	78:11 105:5
181:17 206:20	210:7 214:21	122:3 126:23	118:18 130:8
contained	216:1,20,22	127:22 138:2	139:17 152:8
240:5	conversions	144:14,18 152:4	166:1 168:18
containing	211:9,20,22	154:22 157:8	172:3 173:5,15
104:10	212:2,5,8,9,14	158:5 161:4	177:21 185:2,5
contains	212:17 213:19	170:11 187:2,3	186:21,22
181:9	213:25 214:4,10	204:17 206:2	188:11 190:7
content	216:5,14 217:4	221:1 223:17,18	193:21 194:14
184:20	convert	223:19 238:19	195:2 196:18
contents	194:17	238:20 244:7,10	197:3 198:2,7
75:22	222:13	corrected	201:11,16 202:5
236:19	converted	177:23	246:20 249:19
context	200:24 212:25	corrections	249:22 250:7
20:15,16	214:10 216:17	249:15,16 250:3	counsel's
46:19,20 56:25	216:19	250:4	53:1
60:14 78:9	convey	correctly	counted
145:3,25 146:20	245:1	230:11	186:9
168:5 169:12	cookie	233:23 238:14	
170:2,6,22	133:16		
171:13,23	207:18 208:9,10		
177:20 180:5			
190:18 213:8			

CONFIDENTIAL

[counting - dated]

counting 13:25	created 63:8 116:2 219:18	data 21:17,23,24 21:25 31:4,6 creates 221:7	134:16 142:18 146:1,22,23 148:20 156:9
counts 20:21	creating 27:24 185:7	39:22 40:11,24 41:21,24,25	157:1,2 170:18 170:19 177:16
county 2:16 248:3,23	creation 182:4 187:13	42:19 43:6 45:3 45:17,24 46:9,15	177:16 178:2 180:16,20,25,25
couple 17:25 51:6 52:15 64:8 176:24 215:20 244:2	credentials 115:11	47:8,18,21,25 48:2,14,15 50:16	181:2 182:8,25
course 15:2 24:10 35:22 48:23 77:23 96:10 214:17 240:1	criminally 157:18	50:17,18,20 51:4 51:9,12,13,16,24	183:8,10,22 185:4 191:13
court 1:1 2:1 8:19,25 10:6 30:24 31:5 33:15 35:7 36:18 40:21 43:19,21 68:7,15 70:18 76:22 78:8,20 80:23 104:7,15,15 109:21 111:4 119:17,23,25 127:4,6 143:17 168:20 178:10 195:13,14 200:6 200:7,22 201:6,7 201:8,17 202:3,8 202:9,12 241:12 245:13 246:20 246:25 247:4	cross 239:2 242:23	52:2,15,20 53:16 53:17 54:21	192:8,16,17 193:22 194:3 198:18,19,21
currently 11:19 12:11 140:25 143:3,4,4,5	crr 1:22 248:22	58:2 66:6 67:15	199:10,11
curious 63:14,19 183:24	csr 1:22 248:22	68:10 70:6	202:18,19,23,23
customer 163:20 226:10,16,24	curiosity 107:19	71:12,14,23	202:25,25 203:4
227:1,15,15,20	curious 63:14,19 183:24	72:20 74:5 75:7 75:14,18 76:11	203:6,8,9,10,15 203:16,18 204:2
227:21,25	currently 11:19 12:11 140:25 143:3,4,4,5	82:10 87:17	205:11,12,13
228:22	customer 163:20 226:10,16,24	88:2,14,24 89:2 89:10,15,22,22	207:8,13,14,17 208:1,8,24,25
customers 230:7	227:1,15,15,20	90:7,8 92:3 93:3 93:9,11,12,23	209:10,13,21,24 225:3 229:8
cut 219:19	227:21,25	94:10,11 99:6	238:9,11,17
cv 1:10 2:10 8:20	228:22	105:8 106:4	240:4,5,24 241:1
15:12	customers 230:7 cut 219:19	108:3 110:17	241:3,21
cycles 180:11	cv 1:10 2:10 8:20 15:12	111:6,13,21,22	dataset 71:15 73:4
186:9	cycles 180:11	112:21 115:19	datasets 71:12 73:6
d	186:9	117:4,10,12	date 8:5 37:14 52:17,18 70:2
d 54:10	d	119:4,18,19,21	71:8 107:18
d.c. 4:18	dash 8:20,20,21	121:6,20 122:14	152:13 239:22
cpu 180:11	8:21	123:5,18,21,25	249:17 250:5
create 91:9 94:17		124:5,13,22,24	dated 7:7 37:11 37:12 68:25
		125:5,13,18	82:7 98:14
		126:14,22	
		127:12,21,23	
		128:9,11,20	
		132:5,7,9 133:8	

CONFIDENTIAL

[dated - determine]

102:16 103:16 dates 81:18 119:20 day 2:13 29:3 50:21 223:7 237:25 248:19 days 41:15 51:7 52:16 70:1 dbl 26:18 29:4 dbls 180:25 dc 27:10 28:1 deadline 51:7,8 dealing 239:17 deals 61:4 debate 20:8 debating 141:10 decades 50:2 64:17 december 16:3,6 18:24 19:1 deception 154:11 decide 95:4 108:21 166:24 declaration 6:13 6:23 102:6 103:13 105:3 107:4 122:21 124:8 233:2 declarations 121:18,24 decrypt 158:3,12 158:14 163:23 164:16 165:10 166:23 decrypted 157:6 decryption 157:22	deemed 108:15 defendant 1:11 2:11 defendants 4:12 defending 174:17 deficiencies 34:19 35:13 36:8,12 38:24 deficiency 34:24 defines 148:10 definitely 79:5 86:2 151:21 definition 46:25 degrade 155:13 degree 175:20 175:22,24 176:3 194:22 195:17 195:22,24 196:6 211:5 delineation 16:16 deliver 13:10 demarcate 178:24 demarcation 178:25 depend 86:19 87:5 89:10,12 dependent 124:4 depending 171:8 246:3 depends 8:8 24:15 88:9 192:8,10 depo 116:25 244:10	deponent 248:10 deposed 26:9,11 64:14 197:11 deposition 1:15 8:7,16 11:16,20 12:11,14 13:16 13:23 14:3,5 24:20 26:12 32:11,12 40:15 135:4 136:24 144:2 168:4,6 171:3 182:7,16 185:18 187:20 190:17 196:11 197:23 246:16 247:6 248:8,16 249:20,23,25 250:8,10 depositions 10:22 26:8 171:6 215:22 describe 21:21 63:9 86:25 91:10 95:2 115:23 117:14 239:6,24 described 53:19 78:9 90:25 111:3 122:3,6 125:14,15 128:21 129:9 145:1 177:17 212:24 239:12 242:14 describes 94:9 94:17 describing 72:12 93:22 98:15	122:15 140:6 195:4,7 200:16 205:16 214:3 222:2 231:24 description 94:25 95:6,13 descriptions 70:4,23,25 71:4 71:21 74:2 75:7 95:17 design 7:11 134:21 designation 235:14 designed 90:25 96:7,8 157:14 206:25 217:1,6 designing 91:7 desire 202:9 detail 63:10 95:3 177:17 193:15 238:6 244:1 detailed 188:17 details 120:24 detectable 153:2 153:17,24 154:10,14,17 detected 43:10 detecting 39:9 detection 35:5 39:4 104:11 108:5,9 110:17 231:20 detects 45:7 determination 128:18 129:1 determine 129:15
---	---	---	---

CONFIDENTIAL

[determined - document]

determined	dipped	116:23	discussing	84:7	division	1:3 2:3
249:19,23 250:7	direct	22:9 34:13	107:13 140:14		dld	15:5,8,9
determines		173:15 188:6,23	141:14 145:3		doctor	26:23
201:7		189:1 190:1	163:25 165:2			27:13 36:18
device		194:5 195:25	166:23 167:4			48:21 69:19
devices		231:15	171:21 179:19		document	6:4,6
182:20	directing	139:22	181:1 182:18			6:10,12,16,22
237:9	directly	21:1	192:17 209:10			7:1,3,4,7,10
dictated		22:8 129:17,18	228:11 229:25			12:16 24:15
177:17		131:16 184:19	238:6,22			25:2,2 27:22
difference		193:24 210:18	discussion	38:23		29:12 30:1,20
16:12		219:22 241:22	62:12 98:6			31:14,16 32:15
47:20 60:21	disagree	42:21	123:10 124:11			32:19,21 34:4,7
61:17 116:7		43:11 44:17,18	133:25 141:24			36:2 38:4,6,10
243:6		46:16 153:20,22	142:7 145:6			38:11,13 50:6
different		201:21 215:1,2	166:22 172:22			69:20 84:15
28:22	disclose	35:3,4	172:25 182:6			93:20,22 94:17
28:25 42:9 44:2		39:3 172:20	192:1 211:15			96:5,5,11,12,21
72:3 84:14		178:22	237:7,9,10,14			96:22 97:11,16
92:15 100:23	disclosed	38:25	discussions			98:4,5,10,13,14
112:4 123:5		179:10 184:25	137:5			98:15,15 99:21
126:2,2 132:3	disclosure	197:24	disinterested			103:3 105:1,5,7
133:7 134:16		248:7				105:11 107:9,10
140:7 154:6	discovery	6:8,20	disposal	55:14		122:15,18 130:3
159:20 171:7,7		29:22 30:8,25	dispute	92:4,12		131:12,20,21,22
176:15 190:25		34:19,23 35:13				132:1,6,7 139:1
192:22 193:1		36:8,12 38:24				139:4,6,7 140:5
200:25 206:14		188:8 190:5,6				140:13 141:24
207:15 209:11		195:2 200:14				148:10 149:21
209:12 215:9		202:4	disputes	100:11		151:2,17,21
216:2,9 219:5	discuss	193:15	distinct	241:3,20		152:24 153:15
222:21,22 226:3		206:22 239:8	distributed			153:20 156:5
226:16,23 227:6	discussed	105:14				158:18 163:15
227:10 228:20		134:22 167:6				164:20 165:12
228:22 234:18		176:25 191:24				165:12 167:20
234:19 241:5		213:6	distributor	20:3		168:2,3,7 169:4
differently		discusses	district	1:1,2 2:1		169:6,18 170:4,6
13:4		125:17		2:2 8:19,19		194:14 234:12

CONFIDENTIAL

[document - encrypted]

235:1,17 239:18 242:12 documentation 94:8 95:18,25 96:2 97:3,7,21 97:22 99:8,14,16 99:17 105:8 122:7,22 129:8 129:12,13,14,16 158:18 190:16 215:16 documents 12:13,15 13:17 13:19 23:24 24:14,17,18,21 24:21,23,24 25:9 25:10,13,16,17 25:20,21,22,24 26:2,4,8 27:7 32:10 38:8 47:22 54:21 58:8 62:16 63:8 82:9 83:17 86:24 90:25 91:5,10 94:14 96:17,23,24 98:22,23 99:20 99:24 100:1,4 115:22 120:21 121:15,16 125:11 126:18 129:19 139:23 147:18 148:9,18 149:8,11 150:20 150:21 158:23 168:7,16 169:15 171:16 182:6 194:2 198:9	214:17 215:21 243:18 doing 33:13 44:7 91:6 111:3 114:6 117:3 122:15,16,16,17 122:18 146:18 180:21,21 182:25 185:7 191:17 195:10 196:19 199:6,13 219:25 243:7 246:21 dot 154:23,23 155:1,1 double 36:11 149:23 152:5 155:1 158:24 159:23 192:25 doubt 40:3,4 75:14 download 70:13 101:23 130:13 131:16 138:1 159:3 downloaded 30:3 downloading 151:13 158:25 159:9 dr 9:19 12:25 16:9,13 17:1,6 18:9 31:13 63:13 66:19 92:11 185:5 190:5 194:15 195:3 196:25 197:17 198:1,12	199:1,8 201:10 202:5 229:22 230:16 232:8 234:8 235:13 236:3,10 237:1 237:16 238:21 239:5,13 242:10 243:10,22 246:10,16 drafts 179:5 drawing 56:4 75:21 116:7 duck 33:23 due 92:18 97:19 duly 2:22 10:10 248:6 dynamic 96:13 e e 1:21 2:15 51:21 65:22 98:11 141:8 147:9 244:18 248:5,22 249:10,13 250:1 earlier 52:19 54:2 139:20 156:15 182:6 200:16 238:7 early 15:24 114:13 171:25 easier 13:2 18:1 23:23 30:3 51:3 easily 172:11 180:13 ecosystem 155:22 effect 23:11 30:15 63:5	76:18 97:17 156:12,15 160:13 174:13 212:23 effort 178:18 either 15:18 20:5 25:5 60:19 72:25 98:22,24 99:12 100:5 151:19 181:5 197:21 200:17 203:15,25 233:17 236:23 237:8 electronic 13:7 150:21 element 190:22 eliminated 225:15 elucidated 76:19 email 7:3 138:2 emanuel 4:14 9:25 10:2 12:18 13:8 19:7,12 195:16 empirical 93:12 empirically 90:15 93:6,24 employed 22:3 employee 22:3 98:11 104:20 employees 20:14 20:18,21 141:9 employer 173:4 encrypted 90:3 156:24 159:15 160:6 161:4,16 161:16 162:11
--	--	--	--

CONFIDENTIAL

[encrypted - execution]

162:19 163:3,7,7	entropy 237:7 244:19,19,21,21	estimate 184:7 186:5	examination 5:1 5:4,5 10:14
163:21 164:7,13	entry 71:13,16 75:14	estimated 15:25	196:14 229:20
164:14,17,23	enunciate	et 1:4 2:4 8:18 50:8,9 62:23,23	242:23 248:13 248:17
165:3,8,14,15,16		79:24,24 87:1 116:10 244:23	examined 2:22 10:11 106:3
166:11,21 167:2		events 7:1 130:4 234:13	example 21:5,16 21:17 24:16,22
167:6,14 206:19		everybody 13:3 83:2 91:5 243:9	27:22 28:17
207:1 209:9		135:9 137:1 140:16,22,24	67:5,22 71:7,21
214:1 215:7		156:22 162:24 163:11 164:10	72:6 92:8 95:1 99:19 117:8,9
220:5,13		equivalent	122:12 127:20 146:5 154:24
encrypting		179:12 194:1 erika 3:15 9:16	155:14 166:17 169:13 190:16
157:6		errata 249:15,17 250:3,5	204:16 208:17 209:16 212:1
encryption		errors 243:22 244:11	222:25 223:22 232:12 235:23
157:5 165:4		especially 25:15 120:4 123:4 235:21	exact 43:23 52:18 56:18 61:13 126:13
encrypts 158:4		esq 3:6,7,13,14 3:15,16,22 4:6	151:4 176:18 223:10
ends 228:20		essence 75:20 163:24 214:11	exactly 15:17 17:2 54:3 56:14
engagement		232:2	73:5 81:21 85:23 102:15,19
18:20		essentially 37:4 71:14,23 89:23	113:17 136:19
engineer 22:3		111:3 140:6	exact 43:23 52:18 56:18 61:13 126:13
64:17 94:7		179:23 183:9 213:5 214:8	151:4 176:18 223:10
233:14		241:6	examples 244:25 244:25 245:3
engineers 63:7		establish 197:6	exchange 147:9 excluded 39:1 197:3 231:18
64:14 91:4 96:6			excuse 38:14 245:13
144:23 145:24			execute 145:25 174:24
171:6 212:22			executed 172:24 177:18,22,24
215:23			181:18 188:17 181:18 188:17
enhance 165:12			execution 173:1 180:8
entered 13:12			
entire 35:13			
53:10,15 185:17			
entirely 82:11			
179:3 188:14			
193:1			
entitled 130:3			
167:22 168:16			
168:22 179:9			
196:15			
entries 71:13			

CONFIDENTIAL

[executive - extent]

executive 236:16	164:25 165:18	experimental	146:15 192:9
exercise 183:1	186:15 189:4	56:6 148:24	200:18 207:12
exhibit 6:4,6,12	190:17 192:4	experiments	208:5 212:10,13
6:16,22 7:1,3,4,7	207:21 229:23	52:22 55:11,12	216:25 218:18
7:10 13:11	229:24,25 230:4	140:10 144:5,6	219:8 244:21
22:17,18,21	230:17,20,23	146:21,23	explained 18:15
29:15,18,21	233:1,4 234:9	172:22 177:16	18:16,17 214:15
34:16 37:10,19	exhibits 6:1	179:21 184:1,9	explaining 92:20
43:14 59:5,7	13:12 113:4	186:12	105:21 124:19
61:21 68:16,17	148:14,21	expert 4:24 6:4	141:17 160:1
68:19,21,22,24	exist 103:1	9:19 12:17	218:16 239:9
69:3,15 73:23,24	104:11 113:2	14:20 18:3,7	explanation
81:4 83:25 84:2	118:3	19:16 24:19	160:7,12,13
84:6,6 88:17	existence 35:5	38:14 45:21	explanations
101:11,20,21,25	39:3	77:18,18 78:15	207:21
102:7,21 105:2	existing 201:4	81:19 86:22	explanatory
106:13,15,17,22	expect 235:2	114:6 117:19	138:16
106:24 107:1,3	expecting 139:23	119:11 121:7	explicitly 73:14
107:15 110:11	experience 96:25	134:7 147:19	136:9 184:15
110:13,20	100:4 110:16	168:23 170:10	185:4 194:25
112:13 113:15	111:15 134:6	185:2,3 186:4,25	195:1 196:18
118:25 123:1	experiment	187:1 188:8	197:3 234:3
124:7 127:17	138:23 139:2	191:24 196:12	exploit 165:25
129:23 130:2,5,7	140:6,7,14,15,17	197:22,22,23,25	expose 145:4
131:16 133:10	140:20,21,25	212:11 228:6	exposing 141:1
133:24 134:20	141:3,5,6,9,10	236:5,11 237:2	143:7 144:1
134:22 135:8	141:11,12,13,15	expert's 198:20	exposition
136:8 137:1,14	141:19,22 142:5	expertise 50:1	244:20
137:18,22,23	142:10,14,16,17	50:10 110:16	express 13:10
143:12 144:16	142:18,23,24	111:15 146:17	expressed 43:3
145:20 150:15	143:1,5,16,25	experts 15:9,10	123:13
151:7,11 155:10	144:9,10,21,24	15:12 17:16	expressing 46:24
155:25 156:2,19	144:24,25 145:2	125:15 187:11	extend 33:19
156:21 158:16	145:4,12,15,18	244:23	179:5
158:19,20 159:4	145:23,25 146:3	explain 29:13	extension 235:20
159:11 160:24	146:24,25 147:2	48:2 56:9 60:21	extent 49:19
161:11 162:5,22	149:14,17	62:24 89:25	195:8
163:10 164:10	241:19	95:11 144:19	

CONFIDENTIAL

[extract - first]

extract 224:2	fail 35:3,4	114:7 119:4,20	118:23 122:24
extracted 170:4	failed 39:3 82:10	119:20 123:6,21	149:24 155:21
222:6	fair 59:5	123:23 124:13	166:17 167:1
extracts 221:19	fairly 36:6 160:3	124:25 125:12	172:11 174:3,6
221:20	fake 96:4	134:25 221:21	174:24 181:1
extraneous	fall 229:2	fields 59:19,22	182:7 189:6
57:11	false 226:19	66:15 70:4,22,24	196:24 211:18
extremely 17:24	232:5,11	71:3,20,22 72:20	215:23 218:14
159:21 174:11	familiar 69:20	73:3,7 74:1 75:6	219:13 241:1
176:10 180:7	familiarize	87:1 125:6	245:6
183:20	31:15 69:21	126:5,22 232:16	finding 34:23
f			
f 239:14,22,25	far 64:1 104:10	232:21	118:7,17
facilitate 40:16	113:5 175:23	figure 40:19	findings 33:7,10
98:6	192:2 199:13	41:19 42:1	33:18 34:3
facilities 55:14	fashion 187:23	51:23 55:24	35:15 37:23
fact 33:10,18	fashioned	59:2 78:13 86:7	53:18
34:3 35:15 46:3	136:17	113:21 130:5,18	fine 23:22 53:4
89:20 103:12,19	fast 31:23	154:25 155:3	109:8 136:13
111:12 113:24	136:10 159:4	194:20 195:21	151:19 152:14
133:24 144:3	215:19	224:20	152:18 171:11
153:21 154:9	fault 106:21	figuring 41:20	202:11 204:11
165:4 167:4	favor 103:23	41:22 78:20	220:1
171:21 182:19	fax 6:16 69:4	file 29:4 40:5,7	fingerprinting
182:20 192:7	fear 13:9 155:11	42:6 58:9 71:4	194:3 237:7
204:11 220:2	federal 250:1,8,9	filed 8:18 118:12	241:25 244:19
239:15 241:23	feed 105:18	files 26:16,25	244:22
242:2	feel 39:23 170:23	27:15,16 28:12	finish 27:19
facts 19:9 34:23	171:22 186:19	28:22,24,24 29:2	37:13 61:11
135:8 137:1	218:5	39:18 42:8,15	80:22 90:16
156:21 162:24	felt 77:2	58:16,23,23	136:5 160:4
163:10 164:10	field 50:8 62:13	final 246:22,25	161:11 195:1
164:25 165:18	62:15,20 63:12	247:4	finished 27:19
187:21 188:5	64:17 66:15	finally 48:6	finishing 197:18
202:21 225:25	67:2,14 71:24	financially 9:3	firm 8:23 9:21
faculty 56:25	72:12 73:5	find 11:11 33:9	15:9,11,18
	86:17,19 87:2	54:8 69:1 74:9	firms 185:3
	94:5 105:12	82:10 101:19	first 2:21 10:10
	109:3 111:7,23	110:13,16	14:19 15:22

CONFIDENTIAL

[first - friend]

16:1 18:19,24 27:9 29:25 30:2 31:17 33:8 34:10 36:1 42:7 42:15 45:1 54:4 55:7,7 58:10,12 58:12,13,15,19 71:24 85:2 89:15 90:11 93:18,18 101:17 101:19 103:4 109:12 118:5 125:25 127:20 127:20 133:12 133:12,15 134:10 140:24 141:2 142:15 149:17 159:3 165:5 172:10 174:1 180:19,20 184:14 192:16 202:22 203:21 204:10 205:25 206:21 207:12 207:24 208:8,20 208:21 209:2,5 212:25 213:4 214:7,19,22 218:17 219:1,1 222:11,11 224:2 230:4 231:2 240:9 241:8 five 59:17,21 171:21 176:24 180:6 245:8,8 fixed 130:11 flagrant 190:1 193:24	flexibility 235:21 flexner 3:12 9:13 floor 3:17,23 4:7 florida 3:9 flow 146:23 flowing 90:2 fly 224:23,24 focus 197:2 focused 193:23 follow 54:22 102:5 159:10 163:14 209:22 followed 56:18 following 44:25 53:19 98:9 100:2,10 117:19 123:11 124:16 160:13 166:15 179:20 212:17 221:6 230:10 240:3 follows 10:12 71:11 93:17 157:13 159:19 159:25 163:14 192:15 222:10 249:9 forced 228:14 forcing 223:20 224:7 foregoing 248:8 248:16 forever 78:6 forgetting 223:24 forgive 27:7 117:18	forgot 130:9 131:15 forgotten 179:3 form 14:12 28:15 40:1 42:4 42:22 43:13 45:19 46:18 47:12,15 48:18 49:12 51:17 67:16 72:21 79:19 85:19 86:11 87:21 89:4 93:1,15 94:13,24 95:13 98:2 99:2,22 110:24 111:8,24 114:9 115:1 117:5 118:9 119:6,14,22 125:23 129:6 154:12 172:7 185:6 191:7 202:20 205:14 206:15 207:11 209:17 216:6,10 217:16 219:4 220:9 222:8 224:18 formal 244:20 formed 50:1 121:4 forming 49:25 50:9 87:15 121:3 232:17,22 formulated 194:19 formulation 187:5	forth 2:23 52:14 180:17 236:25 248:9 forthcoming 198:12 forthepeople.c... 3:10 found 15:4,5 25:5,23 26:2 40:21 183:12 241:20 foundation 74:7 118:10 foundational 196:13 four 26:18 28:12 32:3 42:6,14 54:1 58:16,23 70:1 71:22,23 120:11 176:13 176:14 180:6 234:18,18 241:8 241:10 242:6 245:10,21 fourth 99:21 245:20 frame 16:4 francisco 3:18 frank 195:11 franklin 3:8 frankly 126:13 140:19 frcp 250:1 free 39:23 friday 1:17 2:13 8:2 friend 48:22
---	--	--	--

CONFIDENTIAL

[front - go]

front 33:24 240:7	gaia 89:17 132:9 132:10 161:3	genre 27:16 genuine 175:7	giving 21:9 53:7 56:12 77:9,22
full 70:3,7,19 74:1,4 75:5,25 76:7,12 77:14,22 77:23 78:6,7 108:14 121:2 127:13 128:9 139:23,24 229:7 236:23	162:2,10,15,19 163:1,3,7 164:6 164:18,23 165:3 165:16 166:11 166:21,25 167:13,21 203:21 208:13 208:18,22	georgios 16:9 gestures 10:23 getting 21:10 45:20 72:14 77:23 78:16 114:13 197:18 237:24 241:14 ████████ 161:23	169:12 173:11 181:24,25 189:11 221:12 221:14 236:22 glanced 103:3 gmail 208:17 gmm 235:23 go 8:13 21:11 22:24 24:7,8 25:11,25 30:10 30:11,13 32:22 32:24 33:6,10,14 33:16,25 34:13 39:23 40:2,10 41:1,20 48:10 53:3 54:11 59:5
fully 68:12 75:22 78:17 120:21 121:1 179:25	212:19,19 213:3 213:7,12,14,17 213:19 214:4,20	gist 167:3 give 16:24 17:22 25:21 28:21,23	22:24 24:7,8 25:11,25 30:10 30:11,13 32:22 32:24 33:6,10,14 33:16,25 34:13 39:23 40:2,10 41:1,20 48:10 53:3 54:11 59:5
function 222:16 222:17,18,21 223:7,11 224:11 226:22 228:13 228:15,15	214:22 215:11 215:12,12,13,17 216:5,15,20,23 216:23 217:15 230:14 239:9,10	29:8 56:10,16 64:2 68:13,15 76:12 94:21 95:10 100:15 101:15,23	32:24 33:6,10,14 33:16,25 34:13 39:23 40:2,10 41:1,20 48:10 53:3 54:11 59:5
functions 223:3	240:12 241:6	108:11,25 109:2	59:8,16 61:15,21
fundamental 134:4	242:4	113:16 117:7	62:7,9 68:19
further 25:18 78:21 124:19 149:14 201:10 220:6 234:17 246:1,2	gaias 183:11 gao 174:3 177:18 177:20 179:1 180:14 181:6,6,8 181:9,15,18 185:17 187:25	130:10,12 146:5 147:11 148:8 149:21 151:19 151:23 152:21 152:22 160:22 171:12 173:1	69:5,22 73:17 74:14 82:24 84:4,12 87:3 92:24 93:5,11 101:2,7,10,15 102:12 103:23
furthermore 163:20 165:7	198:3 201:16 202:6	178:18 180:2,4 182:13 190:14	109:11,25 112:8 114:4,5 118:7,17
future 235:21	gao's 200:14	190:15 191:17	118:23 120:2,15
g	general 42:24 88:4 100:6,9 115:14 117:17 119:25 141:12 142:16,19 165:11	192:3 211:12 given 21:17 41:21 86:8 87:6 87:14 88:1	120:24 121:14 121:16 122:19 122:24 123:14 124:14 128:22
g 27:10,21 159:24 180:20 182:8 187:25	generated 87:17 89:11	108:23,23 114:19 120:4 144:7 155:17 163:19 174:13 225:21	129:22 130:2,20 131:5,18,22,23 133:12 134:10 134:11 136:12 137:23 138:5
ga 156:18 159:7 161:2 162:1 163:18 164:3,19 203:15,25			

CONFIDENTIAL

[go - google]

143:15,21,21	40:10,23 41:19	210:12 211:10	97:3,7,22 101:8
148:8,22 152:24	48:8 52:8,8 54:1	211:12,13	104:7,20 108:11
156:16 159:4,12	54:8 59:8 67:23	213:12,13	108:14 109:2
160:14,14,22,22	68:16,17 73:23	216:12,21	110:18 111:1,6
163:13 164:15	76:22 78:14	218:20 219:2,7	111:12,22,22
166:7 168:5	83:7,25 84:4,8	219:13,14,19	112:20,24
170:20 178:13	86:15 91:21,21	221:15 223:9	113:20,25
178:15,17	94:22 96:23,23	225:12 226:11	114:17 115:12
180:20 182:18	100:14,15,17,17	226:18,20,21,23	116:6 117:3,10
183:6,21 191:8	100:19,20,20,22	227:18 228:18	119:4,18 120:6
192:9 193:6	101:17 109:8,13	228:25 229:2,15	125:6,22 126:4
196:10 210:1,20	110:2 117:13	232:3 236:18	126:15,20,21
214:11 216:13	120:23 123:14	239:17,20,21	127:13,14,25
217:1,10 218:9,9	126:11,13	242:18,19	128:1 132:11
219:12,22,24,25	130:15,25 131:5	244:21 245:14	133:17,21 134:1
220:9,14 222:7	131:21 133:11	█████ 159:23	134:2,10,11
223:25 226:21	133:13 134:9,12	161:22	141:1 143:7
227:12,19	136:10 137:15	good 8:4 10:16	144:1,3,7 145:4
229:14 234:17	138:1,10 139:11	10:18 35:24	146:13,13
235:8 236:16,18	139:24 142:16	86:23 88:1	149:10 153:9,12
239:23 242:13	143:19,20,22	110:8,24 121:3	154:1,5,5,6,10
244:8 245:7	144:20 145:7	131:7 132:23	154:21,23
246:14,21	146:12,15	142:1 150:7	157:14,22 158:4
godfrey 3:21	147:11,25 149:1	google 1:10 2:10	163:22,22
9:22	150:2,8 158:8	8:18 11:15 18:3	164:15,15 165:9
goes 185:8 205:6	159:10,18,19,24	18:6 19:17,24	165:9 166:22
205:25 206:6	165:20,22 166:2	20:4,5,13,14,17	167:5 168:10,22
221:19,20	170:3 175:25	20:21,25 21:6,7	169:9,19,23
222:22	176:1 178:10	21:8,9 22:2,2,3,8	171:6 183:8,25
going 9:11 10:23	179:20,21 183:5	24:19 30:7,10,25	184:3,4,6 186:12
11:1,10 12:25	185:14,15	31:6 34:23 35:8	186:18,19 189:8
13:2 14:17 15:1	186:22 189:4	38:16 40:21	189:23 190:10
15:17 18:18	192:4,9 195:12	59:21 64:13,23	190:22 191:3,5
29:12 32:5,8,9	196:10,14,17	64:25 65:3 66:6	191:21,24 202:6
32:14,16,17 34:6	198:23 199:16	70:2 72:10	202:17,19,24
34:7,19 35:4,7	200:1 201:8,9	73:25 81:4,12,20	203:3,6,7,12,20
35:12,16,16 36:9	204:1 206:3	86:24 89:16	204:20,22,24,25
38:9 39:12	209:8 210:8,10	92:25 96:6,6	205:7,8,21 206:1

CONFIDENTIAL

[google - help]

206:7,21,25	209:23 211:14	hand 10:23 11:4 99:5,6	226:21,22 227:2 227:10 228:13
208:2,17 209:4	229:13 247:2	handle 78:11	228:15,15,21
209:11,15,21,24	greek 65:24,24 65:25	handled 249:9	hashed 214:1
210:5 211:8	grounds 211:15	handles 146:1,22	215:8 220:13
212:1,22 215:16	group 144:22 151:1,4	hang 143:17	226:15 228:12
215:16,24 216:4	groups 171:8	hanly 4:5 10:4	hashes 220:6
217:8,21 220:3,5	guess 13:6 15:10 15:13 23:13	happen 12:24 15:22 156:23 201:3 226:18	hashing 221:10 he'll 196:3
220:12,12,14,16	29:1 35:24	happened 42:8 56:11 181:22,23	head 122:11 147:7,15 148:7 174:23
220:22,25	38:21 56:20	happening 17:11	header 123:18
221:13,23,24	57:5 73:20	happens 133:25 136:13 150:19	123:25 124:5,13
222:7,12,16,19	98:20 108:24	208:23 209:2	124:23,24
222:24 223:6,10	111:10 113:3	218:18	125:13,18
224:4,7 226:9,9	115:12,14,17	happy 34:13 60:20 61:15	126:14 132:5
226:10,16,22	123:19 131:8	74:18 87:3	133:8 134:16,23
228:13,14 229:7	142:4	89:24 120:23	134:25 135:23
230:8,13 231:18	guidelines 150:24	122:19 148:21	hear 30:22 36:19
233:13 234:3	guy 11:13 244:4	148:22 170:5,20	109:20
237:21 238:4,9	guys 51:22 54:23	170:21	heard 8:10 30:24
244:23 249:4	78:10,10,13,19	harassing 187:23	heart 236:12
google's 17:16	179:19 186:23	harassment 139:2 141:13	heat 185:7
34:19 35:13	239:17	142:20 145:14	help 52:11 53:17
36:8 38:20 43:6	gw 148:6	147:5,6,8,11,13	67:23 73:22
72:7 91:2 95:17	gws 138:23	148:6,10,12,16	86:13 87:8
95:24 96:2	139:2 141:13	148:23 149:15	112:7,11 117:24
98:22,23 106:10	142:20 145:14	149:16,20,21,22	117:25 123:16
110:24 115:20	hard 12:17	149:24	hard 12:17
115:21 119:11	148:6,10,12,16	hash 220:17,17	123:19 124:15
120:9 122:1	148:23 149:15	221:15 222:7,16	127:18 143:20
157:17 222:17	149:16,20,21,22	222:17,18,21	150:2 158:8,17
government 57:2	149:24	223:2,7,10,11	160:1 172:3
grant 4:23 8:23	h	224:2,8,11 226:4	192:5 207:20
57:2 180:6	h 65:22		210:15 216:13
200:7			218:8,20 219:15
grasp 245:2			219:23
great 33:5 48:6			
49:14 72:23			
74:10 140:22			

CONFIDENTIAL

[helped - ids]

helped 172:1,9 172:21 173:19	hochman's 12:25 16:21 30:14,17 39:7 44:5 45:2,6,22 46:2,6,23 47:6 47:17 88:23 92:15 103:10 117:8 128:5 171:14 211:17 225:9	hundred 25:1 82:8 112:2 129:20 149:10	46:4,8,15 47:8 47:18 48:2,14 88:24 89:2 90:2
helpful 20:11 22:15 35:25 52:10 88:5 97:15 103:10 117:8 128:5 171:14 211:17 225:9	helping 57:3 76:19	hundreds 91:3 125:11 240:6	92:9,10,11,17,19 97:4,8 104:10
helps 53:9	hypothesize 67:19,21	hypothetical 98:2,7 99:22 114:9 122:9 157:10 158:7	113:1 127:11 129:17 157:1,2 163:17 170:18 202:25
henceforth 204:20	hypothetically 98:12	identifiers 90:1 90:4,10,20	identifies 113:9
hereinafter 2:23	hope 147:4	identify 35:9 112:21 113:21	identifying 81:14 231:20 232:1 237:8
heron 104:20,23	hopefully 28:7 78:21 136:20 180:15	ids 28:23,25 42:9 90:19,19 138:23 138:23 139:2,2	113:25 217:5,7 217:15,20 218:2 218:13
hey 76:11	hoping 117:25	ice 176:11	140:7,25 141:3
hi 83:13	hour 2:14 193:23	idea 98:17 104:21 131:19 144:11 206:25 213:10 240:1	141:12 142:15
high 20:2 191:17 191:18	hours 13:25 14:1 14:2,3,4,7,7 52:7 72:23 76:23	ideas 134:22	142:16,21,25
hint 147:11	hochman 4:24 9:19 47:1 57:5 92:10,11,19 105:24,25 123:24 125:14 125:16 180:24 191:25 219:25 243:11	identifiable 88:13	143:6,16,25 144:10,21,23
hired 14:10 191:25	house 11:25	identification 22:19 29:19 68:23 101:22 106:16 127:23	145:18,22,24,24 146:3,12,13,13
hm 26:21 35:6 37:21 43:8 60:8 68:24 69:9,13 70:16 151:25 161:1,12 208:12 223:1	huge 115:17 195:5	129:24 137:19 151:12 156:3 158:21	146:24,24 147:2 148:19,24
hochman 4:24 9:19 47:1 57:5 92:10,11,19 105:24,25 123:24 125:14 125:16 180:24 191:25 219:25 243:11	huh 167:12	identified 13:19 43:7 45:3,17,23	149:14,15,16,18 156:8,18,18,24 160:6 162:15,15 162:19 163:1,3,7 163:18 164:6,14 164:17,23 165:3
	humanities 175:20		

CONFIDENTIAL

[ids - internal]

165:16 166:11 167:5,13,14 203:15,25 212:18 226:16 227:20,25 240:12 241:6 242:4 ignorance 79:9 illustrate 211:3 immaterial 87:14 174:3,6 immediately 29:16 131:23 immensely 128:4 implemented 98:17 214:16 233:15 235:3 implication 89:3 important 67:9 111:19 151:5 174:11 179:6 215:25 imposed 31:4 impossible 214:15 222:19 improper 195:5 improve 140:10 inaccurate 17:14 17:22 28:6 175:18,18 inaccurately 16:2 include 79:11 99:17 133:19 153:8 154:19,21 155:8 177:7 213:14	included 14:8 172:23 249:15 250:3 includes 153:25 including 9:7 91:2 94:10 96:2 172:10 192:2 215:22 incognito 7:1 35:5 38:17 39:3 39:4,9 43:9 45:7 45:7 59:18,19 60:9,25 86:19 97:4,7 104:10 108:4,5,9,12 109:4 110:17 111:8,13,23 112:21 113:22 114:1,5 115:19 116:6,12 117:4 117:11 119:5,21 122:23 123:3,7,9 123:12,22,23 124:1,17,18,25 125:1,7,12,22 126:6,22 130:3 130:16 132:4 133:5 134:23 135:19,21,23,25 136:9 137:10 138:11,24 139:13 141:1 142:25 143:8 144:1 145:5 206:13 217:13 231:20 232:7 234:13 235:22	incomplete 98:1 114:8 122:9 157:9 158:6 164:10 217:17 219:9 222:9 incorrect 45:4,8 45:18,24 46:2,7 46:15 47:2,7,14 47:18 48:14 88:25 89:2 232:5 index 5:1 6:1 indicate 142:17 144:8 235:2 indicated 197:17 indicating 235:4 industry 57:3 150:24 infer 111:23 119:5,21 123:7 123:21,23 124:25 125:6,12 125:22 126:6,22 inferring 111:7 125:1 141:11 info 114:1 information 23:11 74:22 75:16 79:21,22 79:25 80:5 94:12 97:1 118:13 121:17 123:11 157:24 182:1 196:15 informed 111:25 initial 18:19 initially 14:11 86:9	input 71:16 224:8 inquired 175:5 inquiring 196:18 inside 11:24 16:23 74:22 75:18 110:18 inspect 148:15 228:3 inspected 171:18 install 94:21 100:17 instruct 189:18 instructed 5:9 52:25 188:10 instructions 53:1 55:16 56:3,10 173:2,10 177:22 179:25 180:1,4 180:12 188:17 integrity 99:7 interact 184:3 interacted 22:8 184:3 186:18 interaction 18:24 20:17,22 interactions 20:14 200:4 interest 142:1 155:6 interested 9:3 72:15,18 127:22 240:8,23 interestingly 35:20 interfaces 13:3 internal 21:10
--	--	--	--

CONFIDENTIAL

[internet - keeps]

internet	8:9 204:4	238:22 239:6,9 240:2,9,10,13,15	joey	116:20 165:23 166:5	josef	4:15 9:24 11:18 14:22	
interpret	21:8 88:22 171:22	240:20		168:23 178:9 179:11 185:18	josefansorge	4:20	
interrogated	2:22	ips	241:23	242:23	journals	95:6	
interrupt	91:15 103:7 194:9	issue	20:6 39:22 40:20 41:13 45:3,17,24 46:9 46:15 47:8,18,25	john	3:6,22 9:22 9:23 200:16,23 201:18	judge	33:24 141:16 196:11 223:22 230:18
interrupted	116:23 185:11 192:24 239:16	48:2,14,16 60:22		join	156:9 159:7 159:17 161:15 161:17,25 162:2	judge's	231:11
interrupting	30:12 64:1 76:15 146:7 195:6	66:3 88:3,14,25 89:2,15,22 90:8			162:13 164:3,6 167:21,25 168:8 168:9,21 169:6,8	july	152:12,14
interviewed	20:20	122:14,14 127:12,21,23 128:12,20 132:7			169:12,17,19,23 170:2,4,10,22	jump	61:15
introduce	29:12 134:22 137:14 158:16	132:9 157:1,3			171:23 192:18	jumping	63:25 91:17
introduced	101:14 106:14 151:7	179:6 185:9			202:18,19,24	june	37:11,12,13 39:21 41:15
investigate	25:18 113:11	191:10 192:17			203:4,6,8,9		51:7,8 52:13
investigation	104:4,15,19 118:19	200:10,21 201:6			209:21 222:13		53:11 60:1 80:4
involve	227:17 227:18	201:16 202:3,23			230:9 234:4		80:10 81:1,23,25
involved	91:4,7 104:14,18 118:19 215:3	203:8,18 204:23	issued	37:23 39:21 85:15	joinability		82:1,7,7 85:2,25
ip	26:19 54:7 183:11,13,14,16 194:4 202:17,17 202:19,24 203:3 203:6,7,13	206:24 229:9			170:19 191:3,10 191:13 192:6	justice	236:24
			issues	6:21 23:12	joined	10:1	justification
					joining	170:17	236:22
						171:15,17,20	jyanchunis
						189:7,22 190:9,9	3:10
						190:21,23 191:4	k
						191:20,23 192:2	
						192:7 209:12	kathryn
						237:13	8:25
							katy
							1:21 2:15
							127:4 247:5
							248:5,22
							keep
							100:19
							122:13 123:18
							157:7,11 223:2
							228:15 229:25
							keeps
							86:24
							224:1

CONFIDENTIAL

[kes - limited]

kes 248:25	90:22 94:20	187:10,11	land 228:24
keulen 230:18	95:5 99:13	189:15 190:21	language 10:22
231:13	100:7,8,19 102:5	191:4,23 193:8	large 57:2
key 90:20 157:7	105:15 108:8,20	193:16 197:22	115:16 146:1
166:18 214:9	109:20 111:1	207:9,10,24	148:18
keyed 90:1,9	114:12,14	209:4,11,20	lasted 140:18
keys 158:11	115:19,21 116:5	211:4,4,11 213:1	141:21 142:13
kidding 246:6	116:5,11,12,20	213:2 214:13,14	145:13
kind 11:12,13	117:3,10,17	216:3 218:7,8	lastly 9:22
22:9 29:16	118:3,6,16,20,23	219:21 220:12	lawsuit 19:5,6
54:21 98:13	119:7,12,16	224:15,23	19:21,23
100:18,21 101:5	120:7 124:3	225:13 226:6,11	lawyer 51:22
103:4 150:23	126:1,2 128:11	227:21 228:1,3	79:10 94:6
175:24 196:13	130:25 131:1,19	229:25 230:24	117:23 179:15
241:25 242:23	131:21 132:24	233:6 235:15	lawyers 78:11
245:1	135:4 136:3,23	242:24 246:9,11	leading 235:6
kinds 190:24	137:4,4,6,9,15	knowing 64:18	leave 244:4
knew 155:16	138:10,14,23	111:9 222:14	left 242:4
know 10:21 11:4	140:14,16,18	knowledge 15:3	legal 38:1,14
11:5,13 12:1,2,6	141:16,19,20,21	24:13 27:24	45:20,21 46:21
12:6 15:6,10,11	141:23,25 142:7	97:1 126:19	54:22 74:8 79:8
16:11,19 17:1	142:10,11,11,13	127:7	79:9 94:6
18:16,17 19:3	142:14,24	knows 31:23	108:18,20
20:21 23:12	143:25 145:11	155:19 188:11	132:18 179:19
25:2,19 26:9,10	145:11,12,13,18	konstantinos	186:23 188:12
27:1,4 28:18,23	146:14 147:13	1:16 2:20 6:5	239:16 243:1
29:2,3,13,14,16	147:14 148:13	8:16 10:8	249:8
36:6,24 38:21	148:20 149:2,10	246:16 248:10	letter 7:7
41:16,16 47:19	149:14,15,20	249:5	level 114:19
47:21 50:14,23	155:15 157:18	I	115:24 155:13
51:19 52:10	157:18 159:6,13		191:17,18
53:8,14 57:6,8	159:22 160:5	l22 182:18	235:23,24 236:5
58:1,5,22,25	161:14 167:17	labeled 234:13	236:6,8
65:19,23 71:5	168:9,12 169:8	labeling 7:2	library 12:2
73:3,5 77:4 79:7	169:20 173:3	130:4 234:13	lifetimes 101:3
81:18,21 82:11	176:11 177:18	lack 146:16	light 56:20 79:23
85:7 88:5 89:17	178:23,23	lagged 237:24	limited 54:16
90:11,13,14,18	179:11 186:2,4		

CONFIDENTIAL

[line - logs]

line 5:11 60:17 69:10 70:9,11 71:15 116:21,23 140:24 142:9,15 185:17 200:19 202:4 245:20,23 249:16 250:4	81:25 86:10 120:22 121:6,13 130:20 158:24 185:6 187:9 223:17 234:18 240:14 243:14	locate 111:12 222:5 locating 114:4 locked 249:13 250:1 lodge 66:20 log 22:2 39:25	59:22 60:1,7,11 60:14,19,19,20 60:20 61:5,17 62:1,4,6 63:4,5 65:15,16 66:13 67:24 71:2,3,10 71:12,12 72:7,8
lines 71:18 234:14 245:8,8	87:13 96:19,20 96:22,22 121:11	41:14 60:23,24 61:18,18 65:6,8	72:10,11,24,25 73:1,6 74:21,23
link 213:3,7,9	242:7	65:10,11 66:1,3	75:14,25 76:4,5
linkage 7:11 209:5,5,8,16,21 210:7 212:20,20 215:10,11,17	lists 39:24 66:15 67:2 85:14,16 86:8 126:20 183:18	66:4,14 67:21 71:6,16,24 72:2 72:3,3,5,6 73:16 75:18,22 76:8,12	76:7 77:3 78:3 78:15,16,17,24 78:25 79:5,6,7 79:11,15 80:2,10
linked 90:4 156:18 213:18 215:12	literally 66:9 146:12 218:7	77:7,9,10,11,22 77:23 78:6	80:25 81:2,5,6 81:13,17,20,24
list 17:21 23:18 24:11 27:1,9 40:2 49:16 50:5 54:11 70:3,5,22 70:24 74:1 75:6 79:6 82:6 84:23 85:11,22 86:3 96:18 108:12,14 125:5,21 126:5 127:13 128:9 132:1,2 137:10 174:22 178:18 184:9 187:6,12 229:7 231:1,16 243:16	litigation 111:14 112:20 113:20 little 10:21,24 12:1 13:2 19:2 26:17 36:4 68:19 89:13 102:18 107:1 112:7 128:4 135:24 136:7,15 147:25 151:14 158:17 193:7 198:5 210:3 237:24 241:13 241:15	81:11 82:9 85:25 86:1,2,20 87:5,12,12 89:12 89:21,21,21 115:11 117:12 132:21 159:20 159:24 161:3 213:12 219:3 220:24 221:8 232:14 233:16 233:16,18,19,21 234:6	82:6,9 84:23 85:1,6,7,10,11 85:11,12,14,16 85:16 86:3,8,8 86:14,14,16,24 87:6,7,17,18,24 88:1,2,5,8 89:10 89:11 102:6,21 102:23 103:11 103:13,15,19 104:10,11 105:12,13,16,16 105:21,22,22,22 106:5 108:12,15 109:3 113:1,2,4 113:6 114:5
listed 42:6 49:4 49:15 52:3 53:24 58:2,9,12 58:13,15 62:16 62:17,18 75:8 78:24 79:16	llc 1:10 2:10 8:18 249:4 llp 3:12,21 4:14 local 30:2 84:8,8 locally 101:24	logging 65:12,14 60:24 136:19 logs 34:8 38:16 38:17 39:25 41:12 59:17,19	115:13 116:2,5,9 116:9,12,16 122:4 128:9 156:19 159:6,14 159:16,17 160:6 161:2,15,17,24

CONFIDENTIAL

[logs - mao]

162:1,5,8,10,14	176:17 177:3	135:16 138:6	manner 112:3
162:18,19 163:8	219:5 225:2,8	141:23 146:1	211:16
163:17 164:2,18	227:14 230:4	148:19,19	mao 3:13 5:4 7:8
164:22 165:13	231:2 234:14	149:11 154:5	9:10,11,13 10:14
165:15 166:10	235:3 238:9	157:23,24	10:15 13:13,14
166:14 167:1,10	looked 63:21	158:23 170:19	14:14 16:15
167:18 168:10	66:11 67:10,14	180:1 190:24	17:23 19:14
168:22 169:9	67:23 68:10	192:8 219:20	20:9 21:4 22:4
171:18 205:8	75:15 76:11	225:6 236:25	22:14,20 27:18
209:11 222:6	78:2,25 79:6,12	240:6 242:21	28:9 29:6,20
229:8 230:10	92:22 149:11	244:22	31:17 32:1,9,11
232:9,12	166:13 167:18	love 75:11	32:13,17,18
long 18:10 27:6	171:15,17 186:8	lunch 140:2	33:17,21 34:6,14
52:8 111:10	193:21	147:24 148:25	37:1 38:2,18
139:25 140:18	looking 27:21	149:2 150:10	40:8 41:5,6,10
141:20 142:13	37:10 60:18	lunchtime 109:7	42:17 43:1,17
145:13 149:1	61:5 71:2,10	m	44:6,11,12,15,16
157:6 237:25	75:19 78:18	m 65:22	44:19 45:12
242:7	85:13,24 86:24	machine 94:22	46:1 47:3,10,13
longer 32:4,4	88:5 89:10,20	machines 173:3	48:5,19 49:13
136:15 151:14	107:15 110:11	madison 4:7	52:1,5,6 53:20
look 23:17 24:22	131:16 137:5,24	magistrate	54:13 55:3,4,22
25:18 34:2,16	152:21 155:14	230:18 231:13	57:15,16,24 60:5
38:24 39:23	156:19 158:9	mail 98:11 141:8	61:12,19 63:24
40:24,25 41:1	162:25 164:4	147:9 221:24	64:4 65:5,9,21
48:15 61:9	212:7 231:4,7,9	mails 51:21	66:8 67:1 68:1,7
63:17 64:21,23	233:4	main 25:4 26:23	68:9,24 69:6,22
64:25 66:2 67:3	looks 56:13	98:15	69:24 73:9
67:12 69:15,16	84:21 109:21	majority 25:23	74:10,11 75:12
69:23 72:2,6,24	lookup 240:18	26:1	75:23 76:6,14,16
73:6,16 74:14,19	lookups 195:4	making 42:11	76:18,25 77:20
84:8 87:17,24	los 2:14 8:1 12:6	48:3,7 78:17	78:22 79:13
88:7 91:25 93:9	lot 27:7 29:2	96:16 100:6	80:7,15,18 81:7
93:11 99:21	44:2 49:7 58:7	107:1 165:24	82:13,15,18,21
106:13 112:8	79:5 96:22 98:6	166:25 170:23	83:3,12 85:9
118:2 132:20,22	114:14 116:2	209:23 212:8	86:6 87:10 88:6
151:8,18 155:25	119:19 121:13		88:20 89:6
156:7 165:4	121:16 127:18		91:13,14,19,24

CONFIDENTIAL

[mao - mean]

92:7 93:2 95:14	166:4,6 167:9,23	232:25 234:8	match 15:12 187:17 220:17
95:20,22 97:12	168:15,24 169:1	235:6 236:13	matches 15:10
97:13,18 99:3	169:5,7,21 170:8	237:1,4,12,16	matching 183:1
100:9 101:4	171:1 172:13	238:7,22 239:1	materials 23:18 24:11 188:22
102:3 103:5,22	173:17,21,24	239:19 242:12	189:1
106:2,11,20	174:5,15 175:1	242:16,21 243:2	matt 104:20
109:6,10,18,25	175:13 176:10	243:18 244:9,14	matter 8:17 27:4
110:7 111:11,19	176:13,20 178:4	244:17 246:4,8,9	43:22 50:10
112:6 113:7,19	178:9,13,14	246:13,23 247:3	78:4 93:18
114:20 115:4	179:7,13,16	249:1	105:16 127:21
116:15,18 117:1	180:1 181:4,13	mao's 246:3	133:24 182:11
117:21 118:11	181:21 184:12	mapped 213:3	196:14 204:11
118:21 119:1,10	184:16,22,24,25	213:14 216:4,8	213:1 222:11
120:8,11,12,17	185:9,10,18,20	mapping 21:17	239:15
122:20 124:2	186:3,10,24	212:4,14 213:6	maximum 13:25
125:3,20 126:8	187:15,24 188:9	216:15,18	maybechromeli...
127:3,9,19 128:6	188:20,24 189:3	maps 228:16	62:13,15 63:12
128:15,20 130:1	189:13,21 190:3	mark 3:13 7:8	72:13 86:17
130:9,14,23,24	190:8,20 191:19	9:13 195:11	87:2 105:12
132:19 133:4	192:19,21 193:3	249:1	124:20 125:2,17
134:3 135:2,9,11	193:6,15,16,19	marked 22:16,17	126:16 231:25
136:12,21 137:8	193:20 194:8,20	22:19 29:19	232:9 236:4
137:21 138:22	195:1,14 196:2,4	68:23 101:22	maybeincognito
139:3,5,9,20	196:10,23 197:5	106:16 129:24	62:20 105:18,23
140:1,23 143:13	197:9,13,20	137:19 151:12	105:25
143:23 144:17	198:17 199:2,4,7	156:3 158:21	maybeincognit...
145:17,21 146:6	199:14,21 200:1	222:22	81:3
146:11 147:17	201:1,21 202:7	markings 12:20	mcgee 3:7 9:21
147:19,22 148:2	202:14,15 203:1	marks 124:18	247:2,5
148:5 150:5,13	205:19 207:22	martin 6:13,24	mean 20:15 23:9
151:15 152:9,19	210:4 211:2	107:4 112:15	25:3 30:9 31:24
153:14 154:7,20	216:7 217:3,24	121:18	39:6 52:17
156:6 157:4	218:6 219:11	master 11:24	53:14 61:1,8
158:2,15 159:2	221:4 222:23	70:3 74:1 183:9	62:22 65:13,15
160:16 162:25	224:24 225:24	232:17,22	65:19 66:1
163:4,12 164:1	226:5 227:25	master's 6:19	67:20,21 69:22
164:12 165:20	228:2,8 229:5,11	176:3	
165:22,24 166:1	229:22 230:16		

CONFIDENTIAL

[mean - mode]

70:15 71:21,25 73:13,18,19 76:4 77:5 78:8,12 89:25 94:2,23 95:16 98:18 100:25 102:17 105:1 123:25 124:15 126:1 131:18 138:15 144:10 147:17 154:4,23,24 155:6 157:16 169:12 170:2 175:19 176:3 177:5 179:7 189:1 201:9 210:22 219:20 223:4 224:14 229:24 242:24 meaning 27:22 35:21 86:1 87:9 122:12 125:15 125:16 126:3 129:18 146:24 150:3 161:21 162:1 170:6 202:24 212:2 means 17:5 61:8 62:21 63:1 68:13 73:21 meant 64:19 208:3 measured 216:15 measuring 211:22 meat 155:9	mechanism 105:23 media 8:15 246:17 meet 194:18 meeting 14:8 18:8 meetings 13:18 members 231:21 232:1 237:8 memory 147:17 148:17 168:24 173:24 194:17 224:1 mention 170:3 226:2 mentioned 19:12 52:18 64:8 162:8 mentioning 149:24 180:23 mentions 30:19 132:8 merely 208:3 merit 94:13 121:10 meritable 95:4 mess 79:8 180:7 message 141:8 145:1 messed 76:5 met 17:10,12 method 39:8 222:6 methodology 93:14 97:14 198:18,19,21 243:7	meticulously 183:5 middle 44:21 91:16,17 136:6 millions 182:22 mind 15:19 22:21 43:4 44:4 56:4 84:1 101:13 104:3 110:10 120:4 122:12 123:18 126:12 131:13 133:14 150:14 158:19 177:2 191:17 221:20 236:16 mine 23:15 39:13 44:25 45:10 92:15 181:19 191:11 191:11 192:14 208:17 minimum 219:22 minute 63:25 229:14 minutes 18:9,9 32:3 39:12 47:5 64:9 82:23 140:3 151:20 171:21 176:24 179:22 mischaracterize 16:18 191:1 mischaracterizes 43:14 53:12 79:2 80:13 82:2 85:3 87:22	88:16 110:19 111:16 113:14 118:25 123:1 124:6,7 126:24 127:17 128:14 132:16 133:9 134:20 135:8 136:25 143:11 144:16 145:20 156:21 162:21 163:10 164:9,24 165:18 170:13 177:12 186:14 186:15 188:4 miscommunic... 146:18 misconduct 6:9 29:22 30:8,19,25 misrepresented 195:3 missing 116:25 224:21 misspelling 180:15 mistake 157:20 245:4,4,5 misunderstand... 217:23 mm 26:21 35:6 37:21 43:8 60:8 68:24 69:9,13 70:16 151:25 161:1,12 208:12 223:1 mmao 3:19 249:2 mode 39:9 43:9 125:13 127:24
--	---	---	---

CONFIDENTIAL

[mode - northern]

142:25 145:5	mouth 116:21	names 26:11	nervous 107:1
152:2 153:2	move 36:22	81:14 85:13	network 64:18
154:9,18 155:13	67:23 76:20	86:14 90:19	91:1 93:21
155:17,18,20	152:14,15	103:10 116:10	101:1
203:10,20 204:5	161:10 166:1	159:20 172:1	never 17:12
204:6,14,21	178:16 192:5,21	234:19	29:15 38:3,6
205:4,18 206:12	moving 150:18	narrative 86:18	40:7 62:3 63:21
206:13 207:7,25	muddy 19:3	natural 74:9	77:2 98:17
208:16 218:19	multiple 20:3	186:21	104:22,25
218:20 235:22	48:3 58:6 71:13	nature 136:1	110:25 137:10
modes 7:6	71:19 72:4	necessarily 93:8	140:11 142:4
151:22 153:16	101:2 114:2	99:7,14	162:20,23
modifying 6:18	116:1,3 166:16	necessary	186:11 237:13
moment 39:15	169:13 183:3,11	120:18 249:15	nevertheless
45:14 46:11	207:15 217:8	250:3	226:20
64:2 66:20 80:1	228:25 231:6	necessity 91:2	new 3:24,24 4:8
80:5 101:10	240:10,16,21	need 31:9 32:4	4:8 11:14 23:11
109:19 205:1	241:5,5,7,22	33:9 35:12	23:14,14 50:18
214:21 220:11	mumbling	36:19,23 40:24	51:4,9 79:22
monday 246:22	241:13	40:25 41:1	134:23 135:22
247:1,2,3,4	mute 109:23	48:20 63:24	155:12,15
monica 12:7	muted 109:22	69:2 80:2 87:16	204:15 206:22
montgomery	n	87:24 99:5	209:22 218:24
3:17	n 7:9	112:10 114:21	238:14,16,18
month 15:25	name 8:23 15:18	114:24 115:3,8	nice 176:15
102:17 105:6	40:5 71:7 85:8	117:18 121:2,19	night 118:13
months 110:18	86:2 103:18	121:22,25	nine 140:3
112:1,19 113:11	111:5 166:14	126:19 142:17	noise 109:20
114:2 187:9	172:6,8,10,11	144:8 152:18	non 59:19 128:1
morgan 3:5,5	173:11,18 174:2	178:5,24 184:2	133:17 134:1,10
9:21,21	177:19,21	187:12 191:22	204:22
morning 8:4	180:15,16	193:13 201:2	nontechnical
10:16,18	184:25 187:25	210:15 211:3,14	197:22
motion 6:7 29:22	235:11 248:18	227:17,18	normal 205:4
72:9	named 106:18	needed 28:8	207:6
motions 77:16	130:7 198:3	175:4	north 3:8
mountain 21:12		needs 56:2,10	northern 1:2 2:2
			8:19

CONFIDENTIAL

[notating - offering]

notating 249:16 250:4 note 8:7 26:15 noted 190:2 notes 178:19 notice 2:12 noticing 9:9 november 68:25 nuances 46:21 96:10 224:16 number 6:3 39:24 52:5 57:1 70:9,11 73:18 74:7 75:10 96:1 117:14 133:22 148:18 191:11 226:7,10,11 227:22 229:23 230:22 231:2,5 237:5 243:24 244:3,6,24 245:18,22 246:17 249:16 250:4 numbered 231:1 231:16 233:8 numbers 24:19 25:16 56:17 71:19 177:9 178:1 182:14 183:2 188:18 244:4,4 245:10 245:22 numerical 244:24 245:3,4,4 numerous 168:15,15	nuts 225:6 nyborg 3:15 9:16 o oo 1:3,14,18 2:3 5:2,7,15 6:2 7:13 8:3 10:7 247:7 248:1 oakland 1:3 2:3 oath 181:22 248:11 object 188:14 objecting 116:22 185:16 objection 14:12 14:18 16:14 17:19 19:8,25 21:3,19 22:11 28:15 37:25 40:1 41:3 42:3 42:22 43:13 45:19 46:18 47:9,15 48:17 49:1 51:17 52:4 53:12 55:1 57:18 65:2,7,20 66:7,22 67:16 68:5 72:21 74:6 75:9 76:2 79:2 79:19 80:13 82:2 85:3,19 86:11 87:21 88:16 89:4 92:6 93:1,15 95:19 97:10 98:1 99:1 99:1,10,11 105:9	106:6 108:17 110:19 111:16 112:23 113:14 114:8 115:1 116:14 117:5 118:8,24 119:14 120:10 122:8,25 124:6 125:8,23 126:24 127:16 128:13 129:6 132:16 133:1,9 134:19 135:7 136:25 137:20 138:18 143:10 144:15 145:19 147:16 153:10 154:2,12 156:20 157:9 158:6 160:11 162:21 163:9 164:9,24 165:17 166:12 167:16 168:14 169:10,25 170:12 172:7 173:14,20,23 174:8,18 175:11 176:4 177:12 178:11,11 179:2 181:11 184:17 185:25 186:7,14 187:15 188:4,23 189:9 190:11 191:6 193:7 195:9,25 196:7,8 197:8,12 202:20 205:14 206:15 207:11 209:17 210:23 216:6,10	217:16 219:9 221:3 222:8 225:23,25 227:23 235:6 239:1 242:12 objections 9:5 38:19,19,21 66:20 116:19 184:16 189:24 194:12 248:13 observation 154:14 observations 7:5 151:1 observing 105:15 obstruct 168:19 198:23 obviously 16:20 21:23 26:5,8 102:15 103:15 116:5,6 139:24 194:6 222:12 238:12 occur 214:18 occurred 186:11 offense 198:4 offer 16:20 47:19 94:2,3 168:6 169:18 170:6,15 201:24 201:25 207:15 offered 5:13 53:3 196:25 234:1 offering 46:5 49:6 93:18,23 95:7 124:20
---	---	--	---

CONFIDENTIAL

[offering - opinions]

155:5 171:10	98:4 101:10,12	241:12,17	80:12 86:22
198:14 232:5	101:20 102:1,10	242:13,21	87:1,14,15,16,25
office 249:12	107:21,21 108:2	244:17 245:7	88:8,9,10,11,12
offices 15:13	109:6,8 112:9,12	247:4	88:19,22,23 89:3
official 94:25	112:18 116:11	old 136:17	89:9 92:15
98:14 177:20	122:21 127:10	once 51:11 84:5	93:19,23,25
offline 196:22	127:10 130:2,11	170:4 222:6	94:24,24 95:16
oh 24:1 30:10	130:17,17	230:24 233:6	96:17 97:23
33:7 73:17	131:18 133:2	235:15	98:10,21 99:22
102:13 106:21	134:15 135:22	ones 17:21 24:18	100:2 105:18
107:2 116:24	135:23 136:12	25:16 64:14	110:22 112:1
130:9 135:23	136:14,18	163:6,6 164:13	121:19,25
152:9 163:5	137:13 138:5	180:2 184:9	123:13 124:21
okay 11:19	139:15,18 141:4	ongoing 194:12	124:21 125:10
12:13,20,23 13:5	143:14 146:15	onward 24:4	126:21 127:10
13:13 15:20	150:18 152:20	open 21:21	129:19 132:3
22:6,15 27:3	154:8 155:25	23:21 29:23	134:7 150:18,22
29:11 31:3	156:7 158:3,16	84:15 101:24	156:7 170:24
32:25 33:12	158:25 159:11	170:5 229:24	174:17 191:11
34:25 35:1,10,14	160:20,24 162:6	opened 69:2	191:11,18 192:6
35:18 37:6,9,15	162:16,18 163:5	130:12 230:20	192:8,12,14
39:19,21 40:12	164:2 165:15	opens 205:4	196:21 203:11
40:14,17 41:7	175:22 178:6,6	operated 90:25	211:19,23,23
43:5 45:15 46:5	178:17 181:16	operates 57:6	224:18 231:24
46:10,12,13 48:4	183:6,7 185:19	63:11 94:19	232:2,4,8,13
48:11 49:16	193:6,7 195:18	96:9	234:2 236:3,4,21
52:9 57:10 59:6	195:21 200:2	opine 203:5,7	237:5,14 241:23
59:8,17 60:2,9	202:14 204:1,3,7	opined 170:9	opinions 16:20
60:10 61:22	204:10 205:1,2,5	opining 170:15	16:22 23:5,8,13
62:5,11 63:15	205:7,7,10	170:19	23:15 43:3,15,24
64:25 68:15,18	206:11,13 207:3	opinion 39:10,11	44:8,14,23,25
69:3,7,11,17,25	207:5,6,7 209:4	39:13 43:12,16	45:9,14 46:24
70:13,14,17,20	210:6,14 211:7	44:1,5 45:2,2,5,6	49:6,12,25 89:8
71:24 75:2,5,25	211:21 212:10	45:6,22,23,24	94:13 95:13,23
76:13 80:20,25	212:12 213:24	46:2,6,14,16,25	96:1 97:14
81:24 83:25	216:4,12 223:23	47:7,17 48:9	98:25 110:24
84:11,20 92:2	225:17,20 226:8	49:17 61:6	120:20,24,25
93:10 94:20	226:25 231:6	62:12 74:4	121:4,11 170:16

CONFIDENTIAL

[opinions - part]

190:6 191:2,9 194:18 195:7 196:24 198:16 232:17,22 234:1 236:10,14,23 237:2,10 243:11 243:13,20 opportunity 244:5 opposed 27:1,15 opposite 99:24 oral 184:20 order 6:6,15,17 6:25 29:21,23 33:19 35:7 37:18 39:22,24 40:18,20 41:13 48:10,16 58:2,14 58:24 59:1,10 68:7,15 69:8,9 69:12 70:2,18 74:14 79:16 87:18 88:8 102:7 105:2 106:18 107:5 113:16 114:21 114:24 115:3 119:17 121:3 125:6 144:5 178:24 184:8 185:13,22 188:18 190:14 212:1 222:25 230:18 ordered 104:7 104:15 111:4 119:23,25	orders 6:20 organizing 27:17 original 105:13 220:9 249:11,22 originally 208:15 originate 223:8 orphan 89:24 outcome 9:4 output 224:9,10 outreach 15:21 outside 121:6 overcomplicate 155:6 overdoing 152:13 oversaw 55:11 56:1 177:17 overseeing 173:1 oversight 49:19 49:24 p p 60:20,23 72:3 105:22 222:6 p.m. 109:14,17 110:3,6 150:9,12 197:18 199:17 199:20 229:16 229:19 246:17 247:6 pacific 11:23 12:5 pacifica 12:4 page 5:3,11 6:3 23:25 26:20 31:10,11 32:15	33:6,19 34:11,17 34:17,21,22 35:23 36:16,22 37:3 59:1,9,9,11 59:11,13 61:21 61:22 69:7 70:10,14 84:4,12 84:17,18,23 131:8 152:24 156:4 159:18,18 162:9,14,14 163:7 164:4 165:6 230:4,22 231:5,8,9,9,11 231:16 233:6,7,8 233:8 235:14,17 245:7,9,21 249:16 250:4 pages 1:25 33:8 33:12 34:5,10 36:2,11,13 48:3 69:16 130:22 139:8 159:8 249:15,18,18 250:3,6,6 paginated 230:24 paginating 34:17,18 pagination 84:13 painting 100:4 pale 187:18 palisades 11:23 12:5 paper 50:6 94:17 95:3,4 150:20	papers 95:1 220:1 paradigms 11:14 paragraph 30:15 42:12 59:10,14 103:24 104:4,7 104:16 107:16 107:22,24 108:6 110:12,21 111:21 112:8,24 113:3 118:2 119:3 122:22 123:15 124:3,17 153:5,19 156:8 156:11,14 160:23 161:6 165:5 181:2 182:2,5,8,14,18 182:24 183:3,6 183:16 211:24 212:1,16 213:10 216:14 219:14 219:16,24 227:12 233:5,9 240:14,22 241:2 243:15 245:7 paragraphs 54:11,12,14 103:4 182:13 183:4 189:5 239:21 240:19 parallel 56:5,12 paraphrase 74:17 pardon 245:13 part 6:17,18 31:4 34:12 41:14 49:17
---	---	--	--

CONFIDENTIAL

[part - plaintiffs]

58:3 60:11	197:4	people 17:13 26:10 53:1 57:7 92:8,9,10 95:13 115:12 132:9 141:24 172:5 174:3 182:22 187:4,12 244:23 245:2 percent 25:1 82:8 112:2 129:20 perfect 12:16 29:10 84:10 138:5 182:17 performance 198:5 period 184:5 249:19 250:7 periods 140:9 perjury 249:18 250:6 permanent 173:4 permit 194:9 person 11:12,13 111:5 117:25 157:16 172:6,8 173:9,16,16,19 177:21 180:14 184:5 188:2,16 188:21 221:18 221:19 223:25 248:7 personally 2:17 96:24 ph.d. 1:16 2:20 6:5 8:17 56:8 57:1,1 248:10	249:5 phrase 89:9 145:23 161:25 physical 13:1 23:22 24:1 94:8 physically 11:20 pick 42:1 picture 100:3 211:1,3 pictures 160:1 piece 99:21 123:11 133:12 158:13 219:1 pieces 99:19 133:12 236:21 pii 206:20 207:2 220:4 piis 221:10 place 8:13 23:18 138:9 140:15 141:5,7,20,20 142:10 143:2,4 145:12 172:25 182:10 212:20 212:21 216:21 216:23 239:19 248:9 placed 49:23 places 54:10 113:25 116:3 133:20 166:16 170:20 plaintiff 42:10 42:10 241:5,6 plaintiffs 1:8 2:8 3:3 4:3 6:7 8:17 9:12,14,18 10:4 10:9 22:18
63:17 64:21,24	parts 34:8 77:7 81:16,20 85:24 89:8 136:19 139:6 144:8 177:10,10,14 178:1,6,20,25 181:5,7,14,17 204:13 party 9:2 90:11 134:8 157:6 203:14,21,24,25 204:9,10 205:9 205:25,25 206:12,21 224:2	82:8 112:2 129:20 perfect 12:16 29:10 84:10 138:5 182:17 performance 198:5 period 184:5 249:19 250:7 periods 140:9 perjury 249:18 250:6 permanent 173:4 permit 194:9 person 11:12,13 111:5 117:25 157:16 172:6,8 173:9,16,16,19 177:21 180:14 184:5 188:2,16 188:21 221:18 221:19 223:25 248:7 personally 2:17 96:24 ph.d. 1:16 2:20 6:5 8:17 56:8 57:1,1 248:10	
65:1 68:7 74:4	204:13 205:25,25 206:12,21 224:2 pass 229:11 passage 139:22 passwords 21:10 pasted 128:1,1 patched 114:14 path 100:19 patience 238:1 pause 10:20 109:19 110:4 185:15 pdf 34:18,21,22 59:9,11,12,13 61:21,22,23,24 70:10,13,14 84:13,13,17 152:25 230:20 231:5,8 249:13 250:1 penalty 249:17 250:5 pending 41:5 80:18 234:23 235:10	129:20 perfect 12:16 29:10 84:10 138:5 182:17 performance 198:5 period 184:5 249:19 250:7 periods 140:9 perjury 249:18 250:6 permanent 173:4 permit 194:9 person 11:12,13 111:5 117:25 157:16 172:6,8 173:9,16,16,19 177:21 180:14 184:5 188:2,16 188:21 221:18 221:19 223:25 248:7 personally 2:17 96:24 ph.d. 1:16 2:20 6:5 8:17 56:8 57:1,1 248:10	
98:21 102:23	205:25,25 206:12,21 224:2 pass 229:11 passage 139:22 passwords 21:10 pasted 128:1,1 patched 114:14 path 100:19 patience 238:1 pause 10:20 109:19 110:4 185:15 pdf 34:18,21,22 59:9,11,12,13 61:21,22,23,24 70:10,13,14 84:13,13,17 152:25 230:20 231:5,8 249:13 250:1 penalty 249:17 250:5 pending 41:5 80:18 234:23 235:10	129:20 perfect 12:16 29:10 84:10 138:5 182:17 performance 198:5 period 184:5 249:19 250:7 periods 140:9 perjury 249:18 250:6 permanent 173:4 permit 194:9 person 11:12,13 111:5 117:25 157:16 172:6,8 173:9,16,16,19 177:21 180:14 184:5 188:2,16 188:21 221:18 221:19 223:25 248:7 personally 2:17 96:24 ph.d. 1:16 2:20 6:5 8:17 56:8 57:1,1 248:10	
137:12 139:4	206:12,21 224:2 pass 229:11 passage 139:22 passwords 21:10 pasted 128:1,1 patched 114:14 path 100:19 patience 238:1 pause 10:20 109:19 110:4 185:15 pdf 34:18,21,22 59:9,11,12,13 61:21,22,23,24 70:10,13,14 84:13,13,17 152:25 230:20 231:5,8 249:13 250:1 penalty 249:17 250:5 pending 41:5 80:18 234:23 235:10	129:20 perfect 12:16 29:10 84:10 138:5 182:17 performance 198:5 period 184:5 249:19 250:7 periods 140:9 perjury 249:18 250:6 permanent 173:4 permit 194:9 person 11:12,13 111:5 117:25 157:16 172:6,8 173:9,16,16,19 177:21 180:14 184:5 188:2,16 188:21 221:18 221:19 223:25 248:7 personally 2:17 96:24 ph.d. 1:16 2:20 6:5 8:17 56:8 57:1,1 248:10	
146:17 158:18	206:12,21 224:2 pass 229:11 passage 139:22 passwords 21:10 pasted 128:1,1 patched 114:14 path 100:19 patience 238:1 pause 10:20 109:19 110:4 185:15 pdf 34:18,21,22 59:9,11,12,13 61:21,22,23,24 70:10,13,14 84:13,13,17 152:25 230:20 231:5,8 249:13 250:1 penalty 249:17 250:5 pending 41:5 80:18 234:23 235:10	129:20 perfect 12:16 29:10 84:10 138:5 182:17 performance 198:5 period 184:5 249:19 250:7 periods 140:9 perjury 249:18 250:6 permanent 173:4 permit 194:9 person 11:12,13 111:5 117:25 157:16 172:6,8 173:9,16,16,19 177:21 180:14 184:5 188:2,16 188:21 221:18 221:19 223:25 248:7 personally 2:17 96:24 ph.d. 1:16 2:20 6:5 8:17 56:8 57:1,1 248:10	
170:16 178:22	206:12,21 224:2 pass 229:11 passage 139:22 passwords 21:10 pasted 128:1,1 patched 114:14 path 100:19 patience 238:1 pause 10:20 109:19 110:4 185:15 pdf 34:18,21,22 59:9,11,12,13 61:21,22,23,24 70:10,13,14 84:13,13,17 152:25 230:20 231:5,8 249:13 250:1 penalty 249:17 250:5 pending 41:5 80:18 234:23 235:10	129:20 perfect 12:16 29:10 84:10 138:5 182:17 performance 198:5 period 184:5 249:19 250:7 periods 140:9 perjury 249:18 250:6 permanent 173:4 permit 194:9 person 11:12,13 111:5 117:25 157:16 172:6,8 173:9,16,16,19 177:21 180:14 184:5 188:2,16 188:21 221:18 221:19 223:25 248:7 personally 2:17 96:24 ph.d. 1:16 2:20 6:5 8:17 56:8 57:1,1 248:10	
179:14 181:9	206:12,21 224:2 pass 229:11 passage 139:22 passwords 21:10 pasted 128:1,1 patched 114:14 path 100:19 patience 238:1 pause 10:20 109:19 110:4 185:15 pdf 34:18,21,22 59:9,11,12,13 61:21,22,23,24 70:10,13,14 84:13,13,17 152:25 230:20 231:5,8 249:13 250:1 penalty 249:17 250:5 pending 41:5 80:18 234:23 235:10	129:20 perfect 12:16 29:10 84:10 138:5 182:17 performance 198:5 period 184:5 249:19 250:7 periods 140:9 perjury 249:18 250:6 permanent 173:4 permit 194:9 person 11:12,13 111:5 117:25 157:16 172:6,8 173:9,16,16,19 177:21 180:14 184:5 188:2,16 188:21 221:18 221:19 223:25 248:7 personally 2:17 96:24 ph.d. 1:16 2:20 6:5 8:17 56:8 57:1,1 248:10	
184:15,25	206:12,21 224:2 pass 229:11 passage 139:22 passwords 21:10 pasted 128:1,1 patched 114:14 path 100:19 patience 238:1 pause 10:20 109:19 110:4 185:15 pdf 34:18,21,22 59:9,11,12,13 61:21,22,23,24 70:10,13,14 84:13,13,17 152:25 230:20 231:5,8 249:13 250:1 penalty 249:17 250:5 pending 41:5 80:18 234:23 235:10	129:20 perfect 12:16 29:10 84:10 138:5 182:17 performance 198:5 period 184:5 249:19 250:7 periods 140:9 perjury 249:18 250:6 permanent 173:4 permit 194:9 person 11:12,13 111:5 117:25 157:16 172:6,8 173:9,16,16,19 177:21 180:14 184:5 188:2,16 188:21 221:18 221:19 223:25 248:7 personally 2:17 96:24 ph.d. 1:16 2:20 6:5 8:17 56:8 57:1,1 248:10	
188:12 194:7	206:12,21 224:2 pass 229:11 passage 139:22 passwords 21:10 pasted 128:1,1 patched 114:14 path 100:19 patience 238:1 pause 10:20 109:19 110:4 185:15 pdf 34:18,21,22 59:9,11,12,13 61:21,22,23,24 70:10,13,14 84:13,13,17 152:25 230:20 231:5,8 249:13 250:1 penalty 249:17 250:5 pending 41:5 80:18 234:23 235:10	129:20 perfect 12:16 29:10 84:10 138:5 182:17 performance 198:5 period 184:5 249:19 250:7 periods 140:9 perjury 249:18 250:6 permanent 173:4 permit 194:9 person 11:12,13 111:5 117:25 157:16 172:6,8 173:9,16,16,19 177:21 180:14 184:5 188:2,16 188:21 221:18 221:19 223:25 248:7 personally 2:17 96:24 ph.d. 1:16 2:20 6:5 8:17 56:8 57:1,1 248:10	
200:12,15 210:2	206:12,21 224:2 pass 229:11 passage 139:22 passwords 21:10 pasted 128:1,1 patched 114:14 path 100:19 patience 238:1 pause 10:20 109:19 110:4 185:15 pdf 34:18,21,22 59:9,11,12,13 61:21,22,23,24 70:10,13,14 84:13,13,17 152:25 230:20 231:5,8 249:13 250:1 penalty 249:17 250:5 pending 41:5 80:18 234:23 235:10	129:20 perfect 12:16 29:10 84:10 138:5 182:17 performance 198:5 period 184:5 249:19 250:7 periods 140:9 perjury 249:18 250:6 permanent 173:4 permit 194:9 person 11:12,13 111:5 117:25 157:16 172:6,8 173:9,16,16,19 177:21 180:14 184:5 188:2,16 188:21 221:18 221:19 223:25 248:7 personally 2:17 96:24 ph.d. 1:16 2:20 6:5 8:17 56:8 57:1,1 248:10	
210:10 211:18	206:12,21 224:2 pass 229:11 passage 139:22 passwords 21:10 pasted 128:1,1 patched 114:14 path 100:19 patience 238:1 pause 10:20 109:19 110:4 185:15 pdf 34:18,21,22 59:9,11,12,13 61:21,22,23,24 70:10,13,14 84:13,13,17 152:25 230:20 231:5,8 249:13 250:1 penalty 249:17 250:5 pending 41:5 80:18 234:23 235:10	129:20 perfect 12:16 29:10 84:10 138:5 182:17 performance 198:5 period 184:5 249:19 250:7 periods 140:9 perjury 249:18 250:6 permanent 173:4 permit 194:9 person 11:12,13 111:5 117:25 157:16 172:6,8 173:9,16,16,19 177:21 180:14 184:5 188:2,16 188:21 221:18 221:19 223:25 248:7 personally 2:17 96:24 ph.d. 1:16 2:20 6:5 8:17 56:8 57:1,1 248:10	
231:4	206:12,21 224:2 pass 229:11 passage 139:22 passwords 21:10 pasted 128:1,1 patched 114:14 path 100:19 patience 238:1 pause 10:20 109:19 110:4 185:15 pdf 34:18,21,22 59:9,11,12,13 61:21,22,23,24 70:10,13,14 84:13,13,17 152:25 230:20 231:5,8 249:13 250:1 penalty 249:17 250:5 pending 41:5 80:18 234:23 235:10	129:20 perfect 12:16 29:10 84:10 138:5 182:17 performance 198:5 period 184:5 249:19 250:7 periods 140:9 perjury 249:18 250:6 permanent 173:4 permit 194:9 person 11:12,13 111:5 117:25 157:16 172:6,8 173:9,16,16,19 177:21 180:14 184:5 188:2,16 188:21 221:18 221:19 223:25 248:7 personally 2:17 96:24 ph.d. 1:16 2:20 6:5 8:17 56:8 57:1,1 248:10	
participants	206:12,21 224:2 pass 229:11 passage 139:22 passwords 21:10 pasted 128:1,1 patched 114:14 path 100:19 patience 238:1 pause 10:20 109:19 110:4 185:15 pdf 34:18,21,22 59:9,11,12,13 61:21,22,23,24 70:10,13,14 84:13,13,17 152:25 230:20 231:5,8 249:13 250:1 penalty 249:17 250:5 pending 41:5 80:18 234:23 235:10</		

CONFIDENTIAL

[plaintiffs - precise]

29:18,21 35:8	109:24 110:11	pointed 72:8	209:7,9,9 212:25
40:22 41:21	115:2 127:4	pointing 40:13	213:5,14,17,18
68:22 98:22	130:23 131:11	113:24 160:1	213:23,24 214:1
101:21 104:8	135:13 136:12	165:4 242:2	214:7,8,20,22,24
106:15 112:25	137:25 139:10	points 75:18	214:24 215:3,5,6
129:23 137:18	142:11 146:6,7,9	238:21	215:7 216:4,8,8
151:11 156:2	156:13 159:12	policies 142:3,6	216:16,19,24
158:20 182:25	163:13 166:7,8	157:17 158:12	217:11,14,20
183:3,15,17,19	168:23 189:19	166:24	218:1,11,14,18
198:15 200:19	192:19 199:15	policy 52:24	218:25 219:4
201:15 202:2	212:12 219:12	polite 176:15	220:3,4,6,6,10
240:5,11,12,16	230:2,19,22	177:19	220:12,13,14,16
240:21,25 241:6	232:19 233:3,5	politely 146:8	220:19,24 221:7
241:7,21,22	234:10 235:13	poor 10:25	221:13,14,20,25
242:6	241:16 242:16	pop 120:3	222:15,20 223:9
planning 197:18	246:24	pops 168:21	224:2,4 225:2,3
platform 235:24	plenty 140:3	popular 182:21	225:13,18
236:6,8	plus 26:19	populate 87:7	226:19 227:4,16
plead 187:21	149:11	positive 226:19	228:11,16,16,19
196:23	point 12:24	232:6,11	228:19 237:17
please 8:7 9:6	15:16 25:4	possibility 77:8	237:20 238:3,10
10:6 11:3 14:16	29:17 31:12,19	141:9	238:13,17
17:20 22:24	39:5 42:12 54:9	possible 28:21	ppids 203:15,25
24:8 27:18 29:3	59:1 63:2,6	52:11 62:24	204:10 215:8,9
29:14 30:13	71:14 73:16	124:25 226:3	215:17,25 217:5
31:17,18 33:10	74:10 75:15	227:19	217:6 218:17
41:2,8,18,18	76:23 89:16	post 178:19	219:17 220:23
43:17,19 44:15	102:12 127:20	potential 98:16	222:5,13 223:8
44:17,19 45:10	129:15,21 140:1	144:23	223:12 229:1
48:23 55:19	146:8 147:25	potentially	practical 26:3
57:11,19 59:16	155:10 170:24	167:13 214:4	216:16
61:11 62:9 64:2	176:6 180:8,22	222:21	practice 32:13
65:3 66:24	185:7 187:19	pp 221:10	precise 16:24
67:22 70:7	190:1 197:1,17	ppid 90:18	17:25 20:11,22
74:12,15 76:15	201:9 204:25	203:22 204:15	20:23 21:14,15
78:16 80:21	210:10,12,25	206:14,16,17,18	23:9 24:8,10
91:13 93:13	220:22 228:19	206:18,23,24	26:24 29:11
107:8,10,25	237:12 239:19	207:1,7 208:10	31:22 36:7 37:8

CONFIDENTIAL

[precise - proper]

38:15 53:6 62:23 80:4 112:2 123:4 170:7 179:25 180:1,7,12 182:14,15 183:20 190:14 203:18,23 207:13 211:17 225:5 230:1 243:4,16 precisely 28:21 85:21 157:15 236:20 precision 37:16 40:16 78:4 prefer 11:12 157:11 preferably 122:13 preparation 179:5 244:1 prepare 13:15 13:23 prepared 201:19 preparing 14:3,5 149:3 presence 18:11 18:13 21:11 126:18 present 4:22 9:7 163:19 230:9 presentations 95:11 presenting 77:16 96:8 presents 226:22	preservation 222:25 preserve 201:16 preserved 200:10,21 202:2 presume 32:20 158:17 pretty 56:18 76:23 115:16 128:1 138:15 144:4 160:9 200:23 previous 108:24 209:19 previously 128:8 205:11 priddy 3:22 9:23 prior 14:23 17:5 17:8,17 53:13 79:3 80:14 82:3 82:6 85:4 87:22 111:17 124:7 126:25 128:14 132:17 149:6 170:13 186:15 186:25 188:5 206:10 207:8 private 7:5 90:5 90:8 127:24 150:24 151:22 152:2 153:1,16 154:9,18 155:12 155:17,18,20 191:12 203:9,20 204:4,6,14,21 206:4,12 207:13 207:25 208:9 213:4 214:9	215:4,4,24,25 218:19,19,22 privileged 51:22 176:7 probably 20:21 106:21 115:16 130:11 195:13 problem 84:3 99:4 101:16 156:25 171:9 226:14 procedure 187:11 249:20 249:21 proceed 198:7 proceeding 9:5 proceedings 83:9 109:15 110:4 199:18 229:17 process 15:7 23:13 53:7,10,15 53:19 56:19,21 178:20 183:9 224:12 processes 191:13 processing 53:16 53:17 produce 35:8 36:17 97:16 177:4 188:18 produced 23:24 24:18 25:15 26:7 38:16 66:5 66:10,13,16 72:10 81:12,17 81:21 96:5 108:3 177:25	183:8,9 professor 10:16 17:1 23:23 27:13 32:20 37:20 42:1 43:4 43:18 52:7 55:5 56:7 57:25 72:18 74:12 83:13 86:7 89:8 91:25 95:15 99:4 101:6 109:18 110:8 114:6 115:8 117:2,22 118:12 129:5 130:14 131:25 135:12 142:12,14 150:5 150:14 160:4 168:11 178:15 179:9 183:24 185:21 187:2 189:19 191:22 192:18 193:9 196:5 199:22 202:16 221:12 229:6 246:10 profile 155:22 180:20 182:8 profiles 191:12 program 181:18 promise 181:25 promised 147:24 prompt 112:10 112:11 proof 141:5 proper 14:18 55:15 198:8
---	--	---	---

CONFIDENTIAL

[properly - question]

properly	114:11 180:18	195:3 196:25 197:17 198:1,12	pulling	22:21 101:13 150:14	57:21 58:4 60:2 60:3 64:5 66:11
property	183:13 219:18 226:6,7	199:1,8 201:10 202:5,16 229:6	pulls	185:5 194:4,5 237:20	67:3 68:14 70:21 74:12,25
proposal	50:8 134:21	229:22 230:16 232:8 234:8	purpose	62:22 141:21 144:24 146:24 157:25	75:2 80:19,22 85:1 88:18 89:7 89:7 95:21
proposed	234:15 235:4,10	235:13 236:3,10 237:16 238:21	purposes	18:3,7 26:3 134:17 208:2 216:16	101:17 107:8,14 108:24 109:1 112:18 113:12
provide	70:2 73:25 81:5 95:2 104:8 112:25 126:5 138:21 148:21 217:12 226:4 238:3	239:5,13 242:10 243:10,22 246:10,16 248:10 249:5	pursuant	2:12	114:11 121:5
provided	24:17 25:6 26:6 28:13 68:2 77:3 149:10 198:10 232:16,21 240:5 240:25 249:20 250:8	public 24:23,23 25:22,23 26:3	put	23:1 28:20 44:2,3 49:22 146:3 155:9	127:1 128:3 129:3 130:25 131:20 132:23
provider	206:22 224:2	129:18 149:12 94:17 95:1	publish	94:17 200:1,9 201:24 248:11	133:3,5 134:14 135:3,13 136:20 136:23 141:2
provides	227:10 235:20 237:21	publisher 206:17 215:4 220:3,13 220:15,20,23	putting	49:9 50:12,12 139:23 159:1 198:5	143:21 144:17 149:6 154:3 156:17 159:5,12
providing	176:15 188:21 189:1 222:14	221:7,25 225:12 225:14,18 226:20 227:2,6	q		159:13 160:3,8,9
proving	93:5	227:10 228:10 228:13,18 229:3	qualifications	173:12 174:6,12 174:16,22 175:3	160:17,24 161:9 162:17 166:7,8
pseudonymous	90:1,10	238:12		175:9,16 176:8 193:19	166:20 167:7,8 169:2 170:17
psounis	1:16 2:20 6:5 8:16 10:8 31:13 32:20 63:13 66:19 131:25 135:12 185:5 190:5 194:15	publishers 155:23 220:7 222:17 226:4,14 227:19,19 228:1 228:20,23 238:10	quality	8:8,9	171:19 176:12 176:14,17,19
		pull 150:23 194:2 225:21 230:19 233:3 234:10 238:3	queries	195:4	185:10,15
		pulled 198:9,22 234:11	query	193:22	190:17 192:11
			question	11:9 24:9 29:25 31:10 37:20 40:6,9,9,14,15 40:23 41:5,8,12 41:19 43:18 45:9,11 48:12 53:9 55:7,20,20	192:20 193:5 204:12 208:3 209:14,14,15,22 210:16,22
					211:10 213:22 213:23 216:2,3 216:20 217:20 217:22,23 218:4 218:9,21 219:2,6

CONFIDENTIAL

[question - recall]

219:22 223:8,13 223:14,15 224:10 232:19 237:23 240:24 questioning 185:17 187:22 192:10 200:20 202:4 questions 5:9 10:17 11:2 35:17 36:6 43:18,20 44:10 44:21 50:16 57:19 60:17 64:3 77:1 83:4 91:18,23 118:14 136:5 138:20 146:10 171:25 196:3,21 197:16 198:14 200:4,6 200:14 201:3,4,7 201:10,15 202:9 218:5 229:23 230:17 233:1 234:9 237:17 243:4 246:1,2,4 queues 10:24 11:11 116:25 quick 159:5 quicker 199:12 quickly 36:1 103:2 quiet 184:12 quinn 4:14 9:25 10:2 12:18 13:8 19:7,12 195:16 quinnmanuel.... 4:20	quintessential 147:12 quite 64:2 99:24 174:24 184:13 245:2 quotation 124:18 quote 233:11 quotes 16:22 r r&s 250:1,9 raise 200:21 201:6,17 202:3 raised 63:13 raising 237:4 ran 21:7 54:16 55:25 57:13,17 62:2 180:25 reach 129:19 186:21 191:2 reached 14:19 16:1 120:20 131:8 188:7,24 190:2 191:9,18 192:25 193:25 196:1,9 reaching 192:12 192:14 read 26:11 30:16 30:16 31:8,18 32:3,5,19,21 33:2,4,7,9,18 34:10 35:12 36:1 43:19,23 47:22 50:7 80:21 103:3 104:5 107:23,24 realize 88:7 171:2 really 36:1,23 50:3 52:11 54:2 87:5 115:13 117:17 124:14 141:25 168:12	108:1 120:15 126:11,12 127:5 131:4 135:24 136:7,18 138:7 138:16 139:15 139:24 140:5 147:8 156:1,4,11 156:12,15 163:14,15 169:15 171:3,5 189:5 230:11 232:3 233:23 237:3 242:16,18 242:19 246:5 readily 45:3,17 45:23 46:3,7,8 46:14 47:8,17 48:1,13 88:13,24 89:1 127:11 reading 30:4 32:10 33:8 59:21,24 69:9,10 103:12 110:21 113:23,24 119:3 131:9 162:5 249:24 250:9 reads 43:21 80:23 127:6 ready 228:9 real 159:4 223:20 realize 88:7 171:2 really 36:1,23 50:3 52:11 54:2 87:5 115:13 117:17 124:14 141:25 168:12	213:1 221:2,5 244:20 reason 26:23 29:8 31:3 54:5 55:10,12,18 64:7 64:12 72:16 79:15 89:19 98:8 122:3 131:14 142:1 173:5,11 180:9 191:14 196:20 221:7 reasonably 43:10 114:18 reasons 31:5 42:11 rebut 191:25 198:15 243:10 243:12,12,15 rebuttal 22:22 23:19 24:12 46:5,23 93:19 129:11 243:20 rebuttals 16:21 rebuted 243:17 rebutting 133:21 194:17 recall 42:7 51:20 53:19 81:1,11,11 81:16,19 112:13 112:17 122:10 129:10 148:22 149:20 171:4 175:23 189:7 190:13 192:2 229:22,25 230:16 232:25 234:8 236:15
--	--	--	--

CONFIDENTIAL

[recall - remember]

237:16,19,21	recording	8:8,12	183:10 187:16	relates	54:8,9	
238:2,6,14,21,24	records	240:6,6	193:20 194:7	relation	168:3	
239:5,16	redacted	233:15	200:11 202:23		202:13	
recalling	193:10	redirect	203:19 204:3	relationship		
receive	51:16	246:3	208:14		14:24 17:6,9	
129:13	ref	248:25	refers	210:6 211:9		
received	37:17	refer	15:9 59:17		244:22	
80:5,10 82:1		53:23	139:1,1 169:6	relationships		
129:12,16		133:20,22 137:2	181:2		17:17	
173:10 219:17		139:3 169:16	reflect	194:13	relatively	136:10
receives	220:6	172:16 174:1	reflected	76:1	released	249:22
receiving	51:13	184:13 186:13	refresh	69:3	relevant	35:3,9
recognize	166:14	208:11	106:19,19 130:6		35:16 38:25	
recollection		reference	refreshed	106:23		
14:21 15:24		124:16	refuses	194:14	41:24 108:15,21	
17:12 18:23		referenced	188:8		115:16 128:9,12	
20:24 28:14		58:23	202:16		128:19 129:2	
38:7 51:6,11,13		85:16 104:19	regard	132:14,24		
53:6 105:10		249:7	172:16	145:11 219:20		
176:2 195:15		referred	regarding	220:21 241:23		
reconcile	38:5	6:20	14:19	reliability		
record	8:5,14	59:21 159:14	50:16 132:4		231:19	
9:9 11:17 32:3		236:7	159:5 199:23	reliable	39:7,8	
51:15,20 55:3		referring	200:4,7		231:25	
83:7,10 109:9,12		12:25	regardless	132:14,24		
109:13,16,25		23:24 24:1	60:23		145:11 219:20	
110:2,5,9 121:13		42:13 43:16,24	87:25 89:20		220:21 241:23	
150:8,11 158:23		44:24 53:2,22	126:4 218:18	reliably	45:7	
165:24 194:13		54:6 64:16 71:5	regular	205:17		
195:10 197:10		104:6 119:8	208:15,16	relied	23:18	
198:11 199:15		122:23 123:2	218:23 223:19		24:12	
199:16,19 200:2		135:1,14,22	reidentify	rely	232:13,16	
229:14,15,18		139:5 142:15,23	127:14		232:21	
242:17 244:7		144:21,22	relate	155:23		
246:6,14,17		145:24 146:2	34:8 194:2	remedy	243:23	
248:16		147:2 148:12	related	31:4 90:10	remember	17:11
recorded	8:11	149:15 150:1,25	107:12 109:3		18:10 20:2	
8:16 248:14		151:3,10 152:17	114:1 122:13		23:10 27:8,13	
		153:12 159:16	129:9 132:6		28:4,16 30:14	
		161:6,17,24	140:19 142:18		39:17 40:4,4	
		168:7,16 169:13	183:22 232:12		50:20,23,24,25	
		169:14 172:9	234:2 236:5,7,21		51:12 52:14,18	
		177:7 182:2,5,9	237:11 240:2		54:2,4 58:6,8,10	

CONFIDENTIAL

[remember - researcher]

58:17,19 60:13 62:7 64:9 80:24 85:6,6,7,13,21 85:23,24 86:1,2 86:3,13 102:15 102:19 103:10 103:18 111:5 137:5 147:7,9 148:7 156:11 172:11,18 173:18 174:7 176:1 178:19 183:22 187:7,8,8 225:16 236:12 237:4,14 239:15	repeating 126:12 rephrase 14:16 41:8 45:14 112:7 115:2 154:3 report 6:4,19 12:17 13:1,20 16:23 18:4,7 21:21,24 22:22 23:2,4,7,10,17 23:19 24:12 28:5,18 30:14,17 30:20 37:10,13 37:24 38:12 39:4,8,21 41:2	126:17 128:21 129:10,11 130:20 133:13 133:19,22 137:3 137:7 148:11,15 149:23,25 150:16 151:5 152:12 153:5,18 157:24 158:9 160:7,12,15,22 161:7,8 163:25 164:19 166:16 169:13 170:3,10 170:16,16 171:3 172:10,17,20,24 177:1,8,8,11,15 177:25 178:1,6 178:22 179:23 180:19,23 181:2 181:14,17 184:9 186:13 187:5,6,8 187:13 188:19 190:5 191:8 192:3,4 194:16 198:15 207:19 210:2,9,11,15,15 211:1,13 216:13 219:13 225:9 226:3 232:13,18 232:23 234:1,3 236:5,11 237:2 242:15 243:13 243:16,20,23 244:1 246:6	127:4,6 143:17 241:12 245:13 246:20,25 247:4 248:6,22 reporter's 248:1 reporting 177:1 179:10 183:1 reports 16:21,23 24:19 26:5 181:7 187:1,1 representation 104:8 112:16,25 194:23,24 represented 195:15,16 representing 11:15 request 25:12 28:12,17 38:20 39:21 51:16 80:2 105:7,20,20 requested 25:11 25:14 29:1 75:4 75:4,5,5,16 78:6 199:6 250:1,9,10 requesting 51:12 82:20 require 112:3 required 35:8 36:17 37:16 112:2 180:11 189:19 222:24 requiring 22:1 research 72:25 researched 24:22 researcher 94:7
remembered 2:12 remembering 27:4 reminded 83:17 remotely 8:21 9:7 17:14 remove 201:23 removed 77:7 repeat 24:9 40:6 55:19 60:3 64:10 65:4 66:24 114:23 122:16 126:11 127:1 133:2,15 161:9 166:8 167:7 177:1,2 218:3 223:23 232:19 237:23 repeatedly 57:21 146:8 176:18 192:23	41:15 42:6,11 43:4,25 44:3,8 45:1 46:6,19,20 46:23,24,25 49:4 51:11 52:3,13 53:3,18,24 54:11 54:17 58:3,7,9 58:13,15 60:12 60:15,17 61:14 62:1,14,18,21 75:8 78:24 79:6 79:11,16,17,20 80:3,9 81:25 82:1,7,11 85:15 85:17 86:9,10 87:13 92:20 93:25 96:23 102:16,24 103:16 110:25 117:15 121:7,11 123:12,14,14 124:21 125:14 125:15 126:17	reporter 2:16 8:25 10:6 36:18 43:19,21 76:22 80:23 109:21	

CONFIDENTIAL

[reserve - run]

reserve	79:23 201:2 246:2	reveal	176:7 revenue 155:16 review 13:19 26:12 82:24 188:22 249:9,11 249:14 250:2	93:12 96:11,14 99:8,20 101:8,9 102:10,20 103:11 106:25 109:4,10 114:3 115:6 117:20	role 200:15 roles 16:17 room 12:10 144:12 root 65:24,25 rotate 220:23 rotating 222:18 rough 246:21,23 246:23 route 49:23 row 26:18 29:4 71:14,16,22 73:8
respect	25:22 39:7 42:7 54:7 60:25 61:6 62:21 63:11 77:4 92:16,18 97:19 240:9	reviewed	61:3 81:1 115:23 129:21 214:17 215:22 243:25	118:4,15 120:5 125:4 128:16,23 128:24 134:13 136:3 149:13 150:4,25 152:14	route 49:23 row 26:18 29:4 71:14,16,22 73:8
respective	70:6	reviewing	25:17 32:15 76:7 83:17 95:3 125:11 126:18	153:21,23 161:13 164:3,5,5 167:11,19 168:5 169:22 173:16	rows 71:18 72:11 rpr 1:22 248:22 rule 198:17 rules 142:3
respond	44:20 76:17 192:20 196:3	revise	243:19	174:7,21 177:19	157:25 158:12 166:24 187:10 189:15,16,17 206:19,20 250:8
responded	241:5	revisit	23:12 79:23	177:21 178:24 181:1 188:11	run 21:5 51:24 51:24 52:14,22 53:2 54:25 55:5 55:6,8,12,17 62:3,5 63:3,3 64:1 75:24 94:22 100:12,18 100:18 116:1 140:20,21,22 141:9,12 142:5 142:17 144:4,5,9 146:22 168:20 172:2,3,9,21 173:5,10,16,19 175:3 176:25 179:23 180:10 181:9,14,16
responding	44:20	right	11:24 14:6 21:16 28:10 30:12,23 31:19 32:20 33:6 34:3	198:5 200:5,13 201:2,6,12,13 202:7 205:22 206:3,9 207:25	
response	6:14,25 91:16 102:6 107:4 112:11 160:8,17	revise	39:14,14,15 41:17 42:19	208:10 210:21 212:7 213:23	
responses	91:20 176:16	rest	43:2 47:4,5 52:2	214:6 217:12,13	
restate	95:20 128:3	restate	52:24 53:11,23 57:14 58:8,16,21	218:10 219:3 220:8 221:21	
result	163:17 223:11 225:2	results	59:13 63:18 64:6 67:12	223:2,7,21 224:16 225:3	
results	53:18 56:11 181:17 182:9 188:18	retained	70:20 72:3,17 73:10,17,24 74:18 76:21	226:15,17,23 227:14 242:4 244:17 246:2	
retained	186:20 246:18	retrieve	77:17,19,21 78:1 78:15,23 79:23	rights 31:15 69:21 202:12	
retrieve	218:14	return	80:8,9 81:9,13 88:21,23 90:8	ring 102:8 rings 30:5	
return	187:22 249:18 250:6		91:12,12,12 92:2 92:8,9,21,21	rnr 1:22 248:22	

CONFIDENTIAL

[run - second]

183:25 184:8 185:23 186:12 186:12 199:10 running 56:5 91:20,20 140:9 142:19 158:13 173:2 179:8 195:19 ryan 3:7 9:21	89:1,14 90:7,17 93:18 96:20,24 97:20 98:8 99:5 99:6,13,23 100:1 100:5 103:9 105:11 113:10 115:7 120:25 123:5,20 124:10 124:12,16,23 125:2 134:6 145:16 147:1,3 150:2 153:15,24 155:24 162:13 164:7 165:13,14 171:12 181:22 184:20 200:24 212:4 213:21 217:2,14 221:6 223:20 227:9,14 229:4 232:4 241:14,18 243:1	231:12,17 233:12 234:3,5 234:14 235:19 scale 244:25 scan 33:1 151:17 scanned 36:1,22 scanning 30:4 179:22 scenario 117:8 117:12 204:16 205:16 212:24 214:2 217:12 224:17 237:19 238:2,16 scenarios 62:25 87:4 100:21,24 117:14,16 148:20 schedule 249:11 schema 65:19,22 65:23,25 66:1,4 69:18 73:20 74:4 76:1 77:14 78:6,7 schemas 64:25 65:6,10,11,12,14 65:16 66:2,5,14 67:21 68:2,10,12 70:3,19,22,24 71:5 73:15 74:1 75:6 schematics 207:20 schiller 3:12 9:13 schmidt 1:21 2:15 8:25 248:5 248:22	schneier 237:11 243:11 schneier's 16:21 243:16 schwartz 18:9 science 176:2 194:22 195:22 195:23,24 196:6 scientifically 93:5 scientist 41:25 scope 239:1 242:22 screen 8:11 102:1 scroll 24:16 31:11 69:7 102:1 107:10 scrolling 178:17 sealed 6:11 106:18 sean 4:23 8:23 search 70:5 120:1 136:9,16 149:25 168:20 172:19 180:22 199:9 229:7,8 235:23 searched 148:15 searches 199:5 searching 131:12 176:16 sec 130:10 150:19 152:21 152:23 158:10 second 6:22 45:5 55:19 101:15,19 101:23 107:3
s s 65:22 sacramento 248:23 safe 30:12 san 3:18 sanctioned 30:7 31:6 81:8 sanctioning 30:24 sanctions 6:8 29:22 31:4 37:18 39:22,24 41:13 48:10,16 58:2,13,23 59:1 168:20 santa 12:7 saw 38:22 85:2,7 85:11,15 112:13 121:17 saying 20:8 23:10 29:5 38:14 46:7,20 47:1,6,14,16,21 48:13 51:23 56:23 77:10,19 78:15 79:21 81:4 87:8,9,14	says 44:5 45:2 45:22 73:24 92:10,11 97:7 98:5 100:12 108:2 111:21 112:24 113:3 114:1 119:18 122:18 123:20 124:12 125:16 134:22 140:25 143:3,4 149:22 152:12 153:1,16 153:21 155:11 160:15 161:25 162:5 163:16 165:6 167:20 215:23 230:6		

CONFIDENTIAL

[second - set]

130:13 143:17	108:2,6 113:9	47:22 67:6 78:6	209:2 211:23
148:8 149:19	115:15 116:7,20	79:25 81:25	separately 28:2
151:24 159:9	116:22 121:15	82:6,10 87:13	separating 215:8
160:22 165:5	121:23 123:13	101:18 102:7,9	series 230:17
200:12 204:8	123:25 131:13	102:10 103:11	232:25 234:9
205:16 207:6	140:18 142:7	107:7,9,11	237:17
208:14,24,25,25	150:22 152:1	122:22 130:18	serve 155:19
209:6 211:13	153:1,3,6 154:24	140:11 158:17	served 105:13
213:12,17,18	155:2 156:10,14	158:23 168:2	182:19,22
214:2 222:16	158:9 159:7	sek 8:21	240:10,15,16
235:17 241:10	161:19 164:21	select 42:20	241:21,21
245:22	166:15 168:7	selecting 40:11	servers 181:19
seconds 215:20	171:9 177:8	selective 95:5	203:21
section 23:25	180:22 182:3	self 59:21,24	service 155:13
34:18 36:9,11	184:2 190:18	138:16	173:4 191:13
38:23 131:22	211:25 212:16	semantic 165:25	session 90:6,9
153:15 156:16	213:9 214:11	send 55:16 56:10	205:4 206:5
164:4,22 210:25	220:21 221:8	73:20 100:16	207:14,24 208:8
243:14	223:18 224:22	140:25 143:5	208:9,14,21,24
sections 183:4	225:9 230:5	145:2 220:3,16	208:25,25 209:2
see 10:22 19:15	231:1,17,22	223:6 226:14	209:6,6 213:4,13
19:15 23:20	233:11 234:12	sending 32:14	213:17,18
24:5,23 25:3	234:14,16,17,20	51:21 228:12	214:23 215:25
26:18,20 27:11	234:22,23	sends 224:3	217:13,13
29:2 30:4 34:24	235:18 236:1	sense 77:19	218:23,23
36:15,16,23	240:8,18 241:1,2	142:2 179:24	sessions 206:14
38:10 39:11	241:19	221:9	207:8,13 208:19
44:7 47:20 50:5	seeing 81:2,2,11	sent 180:16	209:3 214:25
50:11,13 51:25	81:11,16,20 85:6	221:23,24 222:7	215:3 216:9
54:5 59:2,17	86:3 105:15	224:4	217:12 218:2,12
69:12,25 73:4,13	seek 91:21	sentence 27:25	218:22,24 219:5
75:3 77:10,24	168:19 190:4	44:21 90:17	set 2:23 39:6
78:8 98:18	200:13	119:9,17 141:6	61:1,7 62:25
99:19 102:11,14	seeking 190:6	165:5 230:5,6	63:1 87:1
102:21,22 104:4	195:1	231:3,17 233:12	105:23 106:1,4
104:6,12,13	seen 8:10 29:14	234:3	124:21 125:18
105:19 106:18	29:15 30:1,6,20	separate 71:4,14	126:15,15 145:8
106:24 107:6,16	31:14 38:4,6	71:15 208:19,20	206:16 242:5

CONFIDENTIAL

[set - sorry]

248:9	187:21 191:13	simpler 244:25	144:4 146:20
sets 209:13	235:18	simply 44:9,17	158:13
setting 217:4	sign 156:9 205:6	57:13 67:3 86:7	solid 61:6
settings 148:19	207:6 213:25	161:10,14 210:5	solutions 249:8
setups 190:25	249:17 250:5	211:8	solve 226:13
seven 33:8 34:10	signal 30:12	single 25:1 40:5	somebody 27:23
36:2 52:7 139:7	126:1 130:16	40:5 50:6 77:13	71:6 76:4,5,9
246:8,18	133:6,7 134:15	184:5 239:19	77:6 94:20,23
share 13:11	134:16 135:1,5	sir 97:19 126:9	98:12 100:13,20
148:9,9,11	135:14,17,19,21	128:12 132:20	155:12 157:19
shared 240:20	135:25 136:3,24	132:23 135:3	177:24 194:2
shares 209:6	137:2,15 138:11	143:4,14 144:11	195:15 224:7
sharing 206:14	139:13 141:3	146:9 147:6	somebody's 77:9
shed 56:20	143:9 144:13	148:6 163:13	soon 76:23
shift 192:22	signals 125:21	169:2,8 174:16	sorry 10:17
shocked 190:3	132:5,13 137:10	175:7 178:5	14:13 19:22
short 140:9	138:24	182:15 188:10	30:11 34:17,21
211:23	signature 231:12	191:2 197:15	36:18 59:7,9,11
shorthand 2:16	248:21 249:22	sit 113:22 115:24	65:13,17 66:19
248:5,22	249:24,24 250:9	175:10 213:12	66:21 69:1
shouting 187:17	signed 132:10	site 132:11	85:12 97:6 98:3
show 67:5,22	204:19,22,24	sits 115:20	102:12 105:2
97:11,22 103:4	206:1,7,11,11	sitting 149:13	106:21 107:8
140:17 143:3	208:16 238:15	169:22 174:16	109:11,18,19
148:20 168:21	signing 205:21	191:4 221:21	111:5 114:23
169:4 175:6	signs 203:14,20	situated 1:7 2:7	116:16,18,22
194:14 211:1	203:24 204:15	situation 122:5	130:9 135:20
showed 105:5	similar 27:5	122:10	138:25 139:12
113:5 243:19	121:5,8 245:21	situations	141:4 149:4
showing 142:1	similarly 1:6 2:6	134:18	152:22 153:4
148:16 169:5	57:5 245:24	skip 219:19	161:6 171:16
183:16 215:14	simmons 4:5	slides 95:11	181:10 212:6
215:16 240:22	10:4	slightly 246:5	215:19 221:5
shown 32:15	simmonsfirm.c...	slow 241:15	231:7 240:17
shows 97:23	4:10	small 244:25	241:12,17
sic 91:18	simple 58:4	snow 118:22	242:19 245:5,15
side 12:8,9 17:17	160:3,9 193:22	software 96:15	246:11
53:1 98:24	195:4 244:25	122:6,14,16,17	

CONFIDENTIAL

[sought - statement]

sought	6:10	121:14,20 123:6	202:13 210:25	sramek's	122:21
sound	18:2	123:21 124:4	232:14 238:10	ss	248:2
sounds	131:7	128:24,25 129:1	238:17 243:11	stable	223:4,5
150:7	200:24	129:2,2,17	243:13,15,24	228:15	
source	26:16,25	132:21,25 229:8	specifically	staff	185:3
27:15,22	28:12	233:18,20,21	25:11,14 31:18	stamp	130:10
30:23,25	39:17	234:6	34:7 56:2 59:20	stand	129:20
42:6,14	48:15	space 149:12	119:8 135:25	185:15	
49:5,22	52:2	speak 11:4 36:19	175:14 191:20	standard	193:1
58:8,16	62:2,17	83:14 199:22	198:8,15 209:23	standards	151:9
63:7,17,20,21		speaking 136:6	speculate 165:1	stars	3:23
64:5,8,11,13,16		184:16,17,19	175:25,25 176:8	start	12:25 24:19
64:16,19,21,23		193:9 210:2	speculation	42:20 88:11	
67:12	94:12,21	speaks 242:12	117:6 118:9	178:7 245:14	
95:2	99:16	special 6:19 70:3	122:9 132:17	started	114:13
100:1,16	119:21	73:25 183:9	157:10 165:21	starters	204:20
120:21	214:23	196:14 232:17	186:1 202:21	starting	23:25
sources	24:3,6	232:22	217:18 235:7	70:12 82:13	
24:14	25:5	specific 16:22	speed 139:21	219:16	
26:16	31:5,7	31:9 34:12	243:9	starts	34:16
35:9	39:22,25	50:12 52:25	spelling 15:17	211:24	
40:11,20,21,25		55:16 56:3 59:1	spend 13:22 32:2	state	2:17 9:6,8
41:14,14,24	42:2	60:24 61:20	36:23	9:11 10:20	
42:20	48:21,23	63:4 67:14	spending 173:19	11:16 46:8	
49:7,8,16	50:9	86:20 87:5 88:1	spent 149:3,5	89:24,24 111:8	
50:16,17,18,20		88:10 89:12,21	193:23	111:24 119:5,22	
51:5,9,13,16		97:11 98:4	spilly 4:16 10:1	123:7,22,24	
53:23	54:1,3,4	117:20,23 120:2	split 204:12	125:13 171:10	
54:15,21	58:2,3	127:19 128:4,24	spoke 18:2	217:15 248:2,6	
62:16,18	66:3,6	133:21 139:4,6	104:22	248:24 249:10	
67:15	68:11	139:22 140:10	spoken 16:8	249:13	
70:6	72:20 74:5	142:3,21 144:22	104:25	stated	126:16
75:7	76:11	146:2 147:2,5,18	sramek 6:13,24	135:15 139:20	
80:10	96:2	152:1 154:4	104:19,22 107:4	164:19,20	
99:25	108:3	157:12,12 160:7	108:2 110:15	168:25	
110:17	111:6,21	169:3,4,5 173:2	112:15 121:18	statement	42:25
111:22	119:4,18	173:6,9 185:8	124:8 233:1	47:7 48:3,7,13	
119:19	121:6,12	199:3,9,10		88:4 100:6	

CONFIDENTIAL

[statement - sure]

165:11 233:25	193:15,25 194:6	student 15:2	summarize
statements 90:14	194:25 196:1,8	students 56:8	89:13
90:22 156:15	197:4,7,14 200:3	57:1,3 94:16	summarizing
243:15,17	201:25 249:21	180:2	138:3
states 1:1 2:1	stop 40:24,25	study 77:11	summary 191:18
8:19 184:15	41:1 76:15	stuff 45:21 79:8	236:17
231:13 234:22	91:12 143:19	79:9 81:19	summertime
234:23 235:19	146:6 165:22	104:21 108:20	102:18
static 241:24	185:18,18	123:4 131:13	super 38:15
stating 204:11	187:22	174:25 179:19	supervise 176:21
status 234:15	stopped 187:20	203:13 207:20	supervised
235:10	stopping 74:9	219:23 237:13	179:24
stay 186:22	stored 89:23	239:17 242:22	supplemental
188:12 205:1	92:3 93:4,13,23	243:1	6:12,23 23:15
staying 110:10	94:10	subentries 71:19	107:3
stays 208:23	straightforward	subject 192:22	supplementary
stenographer	160:4	submit 15:12	23:13
10:25 64:10	streamlined	220:24	supported
80:21	111:2	submitted 51:11	120:21 121:1
stenographically	street 3:8,17	52:13 102:16	supporting
248:14	4:17	182:25	185:3
step 207:5	strict 157:25	subscribe 248:18	supposed 16:12
stephen 168:4,6	strike 19:22	subsection 35:13	16:13 17:2,3
190:18	38:20 149:5	subset 61:5 63:4	50:5 132:24
steps 54:22	166:1 171:16	substance 83:19	178:21 197:13
217:8	string 40:5	83:23 199:24	sure 10:19 14:17
stick 43:17 45:13	136:16 148:16	substantive	15:6 16:24
46:10 203:18	220:14,14	187:22	17:22 20:4,12
207:15 220:1	strings 71:19	sufficient 201:22	21:2,22 22:16
stip 201:24	stripe 221:9	201:23 202:1	24:8 25:25 26:1
stipulate 201:10	structure 66:15	sufficiently	30:18 31:22
201:14,19,20	66:15	200:20 201:15	34:15 37:2,2
244:9	structured 66:18	suggestion 11:3	41:11 44:22
stipulation	66:25 67:2	12:23 13:3 32:2	45:13 51:21
179:4 184:14,20	71:17	suite 3:8 4:17	59:4,4 60:6,6,6
185:8 187:16	structures 27:25	sullivan 4:14	64:10,20 65:18
188:7,24 190:2	67:14	9:25 10:2	65:25 66:14
192:24 193:7,12			73:1,4 75:16,17

CONFIDENTIAL

[sure - technical]

76:12 78:17 79:4 83:3 88:11 96:11,16 98:19 98:19,19 101:5 103:25 106:25 110:22 113:3 114:10 128:7 130:20 131:24 135:18 137:6,9 137:17 151:18 151:22 152:7 155:1 160:19 166:25 168:3 175:21 176:3 177:5 180:17 183:21 187:25 188:25 200:12 200:23 212:8 220:8 223:24 226:13 236:19 237:6,25 238:25 243:2,2 244:5,24 surprise 111:14 112:19 surprised 36:4 117:22 195:10 198:4 surprises 113:18 surprising 113:13 susan 231:13 susman 3:21 9:22 svk 1:10 2:10 swear 10:6 168:11 sworn 2:22 10:10	syntax 27:24 system 21:10 22:2 47:25 60:24 61:4 63:8 63:9,11 86:25 90:3,24 91:1,6 91:10 93:21 94:9,16,16,18,18 94:25 95:2,7,12 96:3,7,8,9 100:12,13,14,16 100:21 110:24 111:1,19 114:11 114:18 115:10 115:10,17 116:1 120:5,7 140:10 144:5,6,7,9 146:1 157:14,22 157:23 158:3,11 190:25 214:16 216:25 223:21 224:24 225:7 systems 20:3 21:6,8,8 47:23 50:2 64:18 91:8 92:1,22 95:8 100:5,6 101:1,1 101:8 106:4,10 112:22 115:15 120:9,13,14 122:1 228:4	tag 7:4 151:21 take 8:13 22:24 29:24 31:8,20,22 32:5 33:22 35:19 36:5 37:22 48:20 69:22 74:20 82:15 83:3,17 106:13 109:6 110:18 111:10 113:11 114:2 130:14 136:14 137:25 139:10 139:25 140:2 141:20 149:1 150:6 151:8 155:25 156:1 195:13,14 taken 8:17 83:9 99:17 109:15 143:2 150:10 199:18 217:8 225:1 229:17 248:8 takes 151:14 212:20,21 216:22 talk 71:20 76:20 83:19,22 115:14 140:8 148:2 157:23 179:21 218:17	talked 16:25 18:6 25:8 184:5 237:12 talking 14:1,2 18:19 22:10 24:3 30:23 44:23 48:1 63:20 78:19 80:1,6 92:1 96:14 98:13 108:9 118:16 119:3 123:8 127:21 132:8 145:15,22 161:19 164:2 169:20 172:2 189:6 190:19 213:2 221:17 227:3,6,12 232:6 talks 136:8 169:19 tampa 3:9 tamper 178:10 targeted 136:8 task 180:8 team 111:23 119:5 198:3 tech 20:2 technical 9:18 39:5 60:22 77:18 78:14 81:19 86:21 89:18 95:24 117:19,25 123:4 124:11 146:16 151:1,4 152:22 175:3,9,16,22,24 179:8 186:4
		t	tab 142:19 table 102:21 182:3,3 236:19 242:3,7

CONFIDENTIAL

[technical - think]

187:1 195:17	term 139:7	testing 22:9	242:19 243:5
196:11 197:21	142:20 147:1	92:24 97:20	things 19:2
211:5,6 212:11	168:21 171:20	98:20,21,24	50:13 67:4 72:3
221:18 223:25	171:22	100:6,7	72:4 85:14
technically	terminology	tests 21:12 52:15	99:13 100:18
178:21	20:6 21:22	53:22 54:16,25	114:14 119:19
technologies	89:18	56:1,6,24,25	134:12 135:16
21:1	terms 58:3 81:14	57:13,17 62:2,3	139:22 142:2
technology 8:22	89:25 171:7	62:5 63:4	158:1 171:7
11:14	test 21:6,7 51:24	100:12 172:2,4,9	191:12 192:9
tell 10:10 14:10	55:5,6,9,25 56:9	172:21,23 173:6	203:8 219:21
17:11,20 25:15	99:5 100:21	173:16,19 175:3	221:9 222:13,14
26:17 27:3 34:9	101:7 147:17	176:21 177:4,7,9	224:19 228:25
38:9 40:3 42:15	148:17 168:25	177:11,14,16,16	think 9:16 13:2
45:10 48:22,23	173:10,24	179:7,8,8 181:3	13:10,21,21
51:20 56:8 67:6	176:25 177:6	181:9,14 183:25	14:18 15:5,16,23
70:7,23 84:17	179:14,21	186:13 188:3	15:25 16:10
86:5 91:8 93:13	180:25 181:17	195:19	18:8 19:5 20:10
94:6 103:12	182:9 185:23	text 24:20 27:22	27:19 28:16,17
107:11 108:25	189:2 194:18	27:23 43:23	30:6,9,17,17,18
113:17 116:4	testified 10:11	thank 31:21 33:5	30:18 35:12,25
134:24 140:13	120:12 128:8	83:5,6 127:5	36:10 39:2
151:8 153:13	testifying 41:4	150:5 204:6	51:10 57:22
168:1 169:23	239:5	237:25 241:16	76:3,16,16,23
170:1 174:23	testimony 13:17	246:12,13,19	80:25 83:1 91:3
178:1,6 180:2	18:4,7 53:13	thanks 246:20	100:9 106:14
191:9 193:13	63:7 79:3 80:14	247:5	107:11 114:18
197:9 223:18	82:3,25 83:23	thereof 2:14	120:18 121:2,22
225:11	85:4 87:22	thin 176:11	130:9,19 138:15
telling 66:10	99:11 111:17	thing 26:7 95:10	146:13 147:25
86:21 91:5 93:8	124:7 126:25	104:3 115:25	149:1,7,8 152:22
139:6 170:3	128:14 132:17	116:3 126:13	155:8 158:25
181:23 184:18	170:14 177:13	131:5 138:7	160:10 166:2
tells 213:5	186:15 188:5	139:15 169:3	172:18 173:7
tempted 246:5	199:24 212:22	186:21 212:4	176:2 195:9
tending 214:2	215:22 248:12	213:21 220:11	199:12 201:5
tens 182:22	248:17	225:8 226:2	202:11 210:2,24
		228:17 239:20	211:15,16

CONFIDENTIAL

[think - transmission]

219:14 225:4	32:6 33:23	timestamp 182:4	totality 62:15
238:13 240:21	35:19 36:5,23	timing 103:4	100:3
244:12	44:3 48:20 51:4	tirade 185:11	totally 11:10
thinking 16:3	52:8 57:11,22,23	title 43:23	13:13 23:22
76:21 79:22	72:24 75:15	today 10:1 11:2	204:11
206:24	77:13 80:9 83:8	11:16 13:16	touch 224:7
third 99:21	83:11,17 85:2	18:4 41:18	touched 236:21
134:8 203:14,24	91:22 101:14	136:24 139:14	trackin 159:23
203:25 204:9	109:14,17 110:3	144:2,12 149:13	tracking 169:14
205:9,25 206:12	110:6 122:24	174:17 175:10	169:16 190:23
thought 69:2	127:2 130:14	191:4 199:24	tracy 172:10,16
77:3 152:9	131:6,6 137:25	201:20 229:23	172:21 173:13
209:20	139:10,21,25	236:13 237:2	177:6,11,15,18
thoughts 23:15	140:4,10 149:1,3	238:7,22 239:7	178:7 180:14
94:3,3	149:5 150:9,12	243:19 246:21	189:6 193:8,13
thousand 17:13	156:1 166:4	246:23,23	193:16,17
241:3,4	176:16 181:20	today's 246:15	194:21 195:16
thousands 91:4	186:19 195:6	told 33:21 40:18	195:21,23 197:5
240:6	196:19 197:19	118:18 142:20	197:9 198:3
three 32:2 34:25	198:9 199:17,20	148:24 149:17	200:5 201:16
39:1 108:4	205:3,6 229:16	tools 70:5 229:8	202:6
113:9 120:11	229:19 244:13	top 24:16 71:3	tracy's 176:21
124:18 156:4	244:16 246:2	114:14 122:11	traffic 45:8
161:18,19,21,21	248:9,13 249:11	147:7,14 148:7	111:13 125:7
162:7,9,18 163:8	249:19,25 250:7	154:16 167:4	trail 51:15,20
166:10 167:10	timely 35:3,3	174:22 182:21	transactions
167:18 180:6	38:25	220:5 231:2,16	213:24 225:3
197:1 231:19	times 17:25 52:5	234:12	transcribed
234:14,22	58:7 74:7 75:10	topic 25:20	248:15
236:23 237:10	82:3 119:1	76:20 125:16	transcript
240:13,20 241:9	120:11 133:23	173:7 202:9	120:15 162:25
243:17	155:15 169:14	206:24 220:2	176:18 177:3
tie 222:19	171:7 176:13,14	topics 25:18	249:7,9,11,14,14
tight 122:13	179:17 188:6	110:25 129:9,13	249:22 250:2,2
time 8:5 9:6	204:15 206:22	torture 137:13	transcripts
13:10,22 14:22	207:4 218:24	total 13:22 14:3	26:12
16:4 22:24 27:6	228:7 238:14,16	14:4,4	transmission
29:24 31:8,20,22	238:18		6:16 68:25 69:4

CONFIDENTIAL

[treated - understand]

treated	193:2	123:3,16 124:15	180:6 182:5	un	161:16 163:7
trick	66:9	129:5 130:18	197:1 204:12		165:16
	168:13 208:3	136:15 137:4	206:14 208:19		unauthenticated
	225:21	139:16,21	208:20 209:12		192:7 203:9,16
tried	244:20	141:16 154:24	212:18 215:8,9		204:2,2,25
trouble	193:10	155:3 160:4	218:1,12,22		205:12,13 207:9
true	90:13,15,23	161:10 165:23	226:14 228:23		207:14,17 208:1
	91:1 93:7	168:12 187:8	239:21 241:9		208:4,22,23
	137:11 169:24	192:21 194:20	243:1		233:19,19,20
truong	4:6 10:3	198:20 208:5	tying		234:4,6
	10:3	210:13 212:10	type	11:1 24:15	unclear
trust	96:21	212:13 214:11		50:2 74:4 86:23	undergrad
	99:14,23	218:7 220:8		88:2 119:25	180:12
trusting	99:7	223:15 224:20		144:7 178:25	undergrads
truth	10:10,10	225:4,22 239:19		types	180:4
	10:11 180:3	243:3,5 245:5			undermine
	223:19	turn	100:23		234:1
try	10:19 100:22	230:22	178:3		understand
	103:10 146:15	233:5 235:13	typewriting		17:24 18:1 21:9
	146:18 148:3	twice	248:15		26:25 27:2,14,16
	165:25 168:18	241:9	typically	11:12	28:11 29:5 36:2
	168:23 176:1	two	typing	131:13	38:5 39:16,20
	178:9	16:16 25:5	typo	245:5	40:7 41:9,23
trying	13:24	26:18 27:9 28:4	typographical		46:21 50:4
	20:1 26:23,24,25	28:18,22 34:3	244:11		52:23 54:23,24
	27:2,14,16 28:11	38:5 42:7,8,8,14	typos	243:22	65:13,17 66:1,4
	31:24 32:3 33:1	42:16 43:3,11,15	244:2		67:9,13,19 73:1
	33:23 38:4,5	43:23 44:25	u		73:4 75:22
	39:16,20 40:19	45:9 54:3,4	u.s.	182:23	76:10,13 77:17
	42:1 50:3,13	58:10,11,12,12	ua	26:19 241:7	78:11,17 79:10
	52:11 55:24	58:13,15,19,20	uas	54:7,7	92:1,2,5,23
	59:3 62:7 66:9	59:25 60:21		183:18 239:10	117:18,19 118:1
	67:13,18,20	69:16 71:7		240:25 241:20	123:19 124:11
	74:13,17 76:10	72:23 76:23		241:23 242:5,8	129:5 135:25
	76:17 80:22	80:17 82:14	uh	167:12	169:11 179:18
	85:23 86:7	85:22 89:8,8	uids	182:4	188:25 198:6,21
	91:25 92:23	90:22 99:13,19		█████ 157:15,23	208:6 211:6
	98:9 117:24	104:4,18 111:14		158:3,11,18,23	212:15
		112:19,20		166:22	
		113:20 118:14			
		121:18 178:3			

CONFIDENTIAL

[understanding - various]

understanding	urquhart 4:14 16:17 38:13 44:24 47:22 50:11 54:19 57:7 63:10 68:12 72:9,15 73:7 74:16 75:17 77:24 81:12 86:23 87:6 88:2 110:23 119:24 140:11,13 192:12 200:18 217:19	182:21,21 183:2 203:14,17,19,24 204:14,19,20,22 204:23,24,25 205:3,17,21,24 206:7,8,17 214:9 215:2,3 217:15 217:21 218:23 220:18,19 222:14 227:11 228:23 230:8,8 230:13 234:19 235:11 237:20 238:3,15,22 239:7 240:2,25 241:3 242:3	v
understood 11:6 13:13 27:23 196:19	125:22 126:22 131:19 141:14 142:22 144:13 144:23 145:24 146:23 153:1,16 154:8 177:20 178:18 180:10 185:22 201:21 202:19 209:15 209:21 210:6 211:8,13 212:2,9 215:24 217:9 218:1,13 219:5 230:7 246:8	users 43:6 45:2 45:16,23 46:3,6 46:8,14 47:7,17 48:1,13 88:13,24 89:1 90:5 97:3,8 127:11,15 133:16 204:3 217:5,7 218:2,13 uses 13:3 110:17 125:6,12 126:15 127:14 145:23 202:17 203:3,6,7 203:15,25 209:5 211:15 215:16 216:4	vague 16:14 19:25 21:3,19 37:25 51:17 65:2,7,20 66:22 68:6 72:21 76:2 89:5 92:6 93:1 95:19 97:10 99:2 106:6 108:17 111:17 116:14 117:5 118:8 122:8,25 127:16 128:13 129:6 134:19 138:18 145:19 153:10 154:2,12 156:20 157:10 158:6 170:12 173:14 219:9 227:23
unidentified 89:24 170:17 202:25	154:8 177:20 178:18 180:10 185:22 201:21 202:19 209:15 209:21 210:6 211:8,13 212:2,9 215:24 217:9 218:1,13 219:5 230:7 246:8	valid 80:4 87:6 87:25 94:12,24 97:24 189:24	
unified 7:10	202:19 209:15	validate 93:19 93:21	
unique 90:5 226:12 241:24	209:21 210:6 211:8,13 212:2,9 215:24 217:9 218:1,13 219:5 230:7 246:8	validity 92:24 97:20 98:21,24 121:10	
unit 8:15	useful 111:10	value 72:12,13 115:14 220:10 220:12 222:22	
united 1:1 2:1 8:19 231:13	user 90:18,19 127:24 134:8,10 141:1 143:7 144:1 145:5 154:15,16,18	226:4,15 227:10 228:21	
units 246:17,18	156:8,9,18,19,25 157:1 159:7 162:1 163:18 164:3,19 182:19	van 230:18 231:13	
unredacted 6:9		various 141:8 238:21	
unreliability 232:6			
unreliable 241:25			
updated 96:11			
[REDACTED] 161:22			
url 152:11,17 227:22			

CONFIDENTIAL

[vast - website]

vast 25:23 26:1	violation 188:6 188:23 190:1	walk 120:25 207:19	wants 13:7 33:14 140:2
verge 82:14	193:24 194:6	want 11:4 13:1 16:2,18 17:14,24	warn 165:22
verging 146:9	195:25 196:8	18:15,16 20:22	warning 166:4
verify 37:18 48:20 93:12 175:7	virtual 8:22 24:2 virtually 2:17 8:8	25:3 28:5 29:3 31:17 32:4,19	washington 4:18
veritext 1:23 8:24 9:1 246:18 249:8,10,12	viruses 90:10 visit 133:17 134:1,2	33:22 36:5,24 40:16 42:18 44:1,22 46:22	watkins 7:9
versa 233:22 234:7	visited 206:4 visiting 127:25 132:11 155:21	48:21,21 52:21 53:4 55:13 58:25 61:15,16	way 11:4,5 22:9 22:10 23:22
version 6:10 201:25	16:12 19:17 24:2 98:23	71:15 73:14	28:20 29:11
versus 8:18	visual 10:23 11:11	74:18 78:4 79:7 81:18 87:4 88:4	36:22 52:15
vice 233:21 234:7	vocabulary 78:7 voluntarily 228:12	88:9 89:9,18 94:3,5 100:8,13 100:15,18	53:17 54:20
video 8:12,16	vpn 21:11	107:23 108:19	56:24 71:3,17
videographer 4:23 8:4,24 10:5 10:13 83:7,10 109:13,16,23 110:2,5 150:8,11 199:16,19 229:15,18 246:15	vs 1:9 2:9 249:4 w	124:14 128:3 131:9,18 138:7 141:12 143:20	74:18 82:11
videotaped 1:15	w3c 7:4 151:1,3 151:21 155:24	143:21 146:22	84:4 88:22
view 21:12 39:5 100:4 204:25	wait 11:9 12:23 33:10 44:15 63:23,23,23,24 66:20 80:18,18 80:18 141:4 162:3 193:3,3,3	155:6 160:14,19 165:25 166:19 171:10 172:12 175:17 180:10 187:17 188:12	89:23 90:24
viewed 13:17	193:3 212:3,3,3	191:1 198:7	91:8,11 92:2
violate 142:3,5 157:17 193:12	213:21,22,22 215:20	201:17 203:17 207:15,18,24 208:6 210:7,14	112:20 136:17
violated 192:24 193:7	waived 249:24 249:24	217:1,2 219:21 219:21,24	143:25 147:23
violating 193:14 194:25	waiving 200:5 202:12 249:21	242:25 243:19 wanted 25:18 171:25 241:19	151:18,19
			155:21 167:1
			171:23 174:2
			176:25 181:19
			181:24 182:22
			196:24 198:18
			212:14,16
			214:16,19,20
			217:6 233:25
			ways 127:14
			176:25
			we've 25:8 52:7
			64:1 140:3
			146:7 187:18
			193:1 198:11
			web 159:23
			203:24 224:1
			weblogs 159:24
			website 90:10
			128:1 133:17

CONFIDENTIAL

[website - wright]

134:1,2,8,11,11	witness 2:21	133:11 134:21	word 65:4 69:18
154:15,15,17	4:24 8:10 10:6,9	135:10 136:7,13	146:2 197:14
155:5 203:14,25	14:13 17:20	137:2 140:5	201:21,23 202:1
204:23 205:6,9	19:10 20:1	143:19 144:18	212:9
206:4,6,12 219:4	21:20 22:13	146:7 150:7	wording 78:5
websites 133:21	27:21 28:16	151:13 152:11	151:4
153:2,8,11,12,17	31:21 32:9,14	153:11 154:3,13	words 12:14
153:25,25 154:6	34:2,9 36:21	156:4,23 157:11	44:2,2 64:7
154:19,21 155:9	40:2 41:7 42:5	158:8,22 160:12	111:20 112:5
155:15,21	42:24 43:15,22	162:23 163:2	126:2 146:3
wednesday	44:20,22 45:20	165:1,2,23	241:13 244:3
246:22 247:1	46:19 47:16	166:13 167:17	work 11:13
week 102:16	49:3 51:19	169:11 170:1,15	13:11 14:20
104:4,18 224:5,6	53:14 55:2	172:8 173:15,25	19:6,11,24
228:17	57:19 59:24,25	174:10,20 176:7	173:25 188:8
weeks 105:6	61:13 65:3,8	176:14 177:14	212:14,17
112:1	66:21,24 67:18	179:18 186:2,8	214:23
weird 77:25 78:2	69:1 72:24	186:17 187:23	worked 15:13
welcome 31:23	75:13 76:3,15	188:16,25	20:4
192:3	77:2,18,18 79:4	189:11 190:13	working 20:5,7
went 149:8	79:20 80:16,24	191:8 194:13	20:13 27:6 50:8
161:8 185:11	82:5,16 83:6	196:2,21 202:22	57:7 64:17 94:4
193:21	85:5,20 86:12	205:15 206:16	104:19 120:6
west 12:8,8	87:23 88:18	207:12 209:19	136:16 149:4,5
whatnot 71:19	91:16 93:17	210:24 216:12	171:8 180:5
112:1	97:12,15 98:3	217:19 222:10	186:19
whatsoever	99:12 101:23	226:2 227:24	works 95:12
61:17	103:8,9 105:10	228:9 235:9	109:9 122:6
whereof 248:18	106:8,17 108:19	241:17 242:14	136:19 214:19
window 206:11	110:21 111:18	242:18,25 243:3	214:21
wish 100:3	112:24 113:16	244:18 245:15	world 223:20
128:22 142:1	114:10 115:2	248:12,18	worries 151:16
172:23 206:21	117:7 118:20	249:14,17 250:2	worry 145:4
withdrawing	119:2,16 120:16	250:5	worrying 141:25
185:14	122:10 123:2	witnesses 35:4	141:25
withheld 40:21	124:9 125:10,25	38:25 39:1	wrap 199:12
withholding	127:1,7,18 129:8	187:19 193:2	wright 3:16 9:16
31:6	130:12,17 133:2	194:9	109:22,23

CONFIDENTIAL

[writing - zwiebacks]

writing	49:10 104:9 113:1	84:3,6,6,6,22,22 84:22 87:11 91:19 95:20 96:20 99:10 101:5,16 102:4 103:6 107:2,2,9 107:15 112:12 117:22 118:8,24 126:10 127:3 130:18 131:4,11 136:22 138:8,10 139:19 140:24 143:5,10,24 150:3 155:4 161:5,10 162:13 163:2 165:17 167:10 174:8 189:20 212:12 217:25 218:7 219:2 225:19 228:3,6 244:5,6 244:14	youtube	235:23
			z	
			z	40:7
			zero	245:11,16
			zervas	16:9,13 17:1,6
			zip	12:5
			zoom	1:15 3:4,11 4:4,13 10:21 11:11
			zwieback	132:8 132:13,21 133:16,20 134:7 134:15
			zwiebacks	133:6 133:6
x				
x	40:7 123:18,25 124:4,13,22,24 125:13,18 126:14 132:5 133:8 134:16,23 135:19,21,23,25 136:9 139:12 174:23 223:7	167:10 174:8 189:20 212:12 217:25 218:7 219:2 225:19 228:3,6 244:5,6 244:14	years	20:3 47:24 50:2,7 56:6 94:5 111:14 112:20 113:20 114:13
xx	250:9	116:2 120:6		
y			yep	69:11
y	40:7		yesterday	12:19
yanchunis	3:6 9:22		ygi	8:21
yeah	10:19 12:1 13:9 14:17 27:12 30:13 34:22 36:4 37:5 37:5,7 42:18 55:23 56:22 59:4,4,4 69:22 70:8 72:17,17,17 77:1 81:8 82:18		ygr	1:10 2:10
			yolo	2:17 248:3
			york	3:24,24 4:8 4:8 155:15
				204:15 206:22 218:24 238:14 238:16,18

Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS
COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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